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ABSTRACT

This volume presents a sampling of major innovative programs in a broad range of teacher training institutions. A selection of 39 case studies focus on innovations in teacher education in Asia, Europe, Latin America, and the United States. The case studies are selective; certain areas of the world were not canvassed; the majority of contributions came from the United States. Each study was particularistic; most changes emphasized specific components of a total program. Eight areas of innovation were studied, including 1) performance-based teacher education; 2) in-service education; 3) field centered teacher education; 4) educational media, technology and teacher education; 5) teacher education for rural transformation; 6) individualized teacher education; 7) integrated teacher education; and 8) innovation in teacher education at a national level. Each study section was provided with an introduction and three to eight case studies concerning the area of study. A summary of innovation and change in teacher education stressed the need for continual innovation for the survival, rather than the decoration of education. (MJM)

INNOVATION IN TEACHER EDUCATION: AN INTERNATIONAL PERSPECTIVE

ED 063272

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THE INTERNATIONAL COUNCIL ON EDUCATION FOR TEACHING

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PREFACE

INTERNATIONAL COUNCIL ON EDUCATION FOR TEACHING

The International Council on Education for Teaching is a worldwide voluntary association of organizations, institutions and individuals dedicated to the improvement of teacher education. ICET serves as an independent professional organization linking the world's teacher education community in cooperative educational enterprises including research, communication, and other programs designed to create closer bonds, on a multinational basis, among teacher educators everywhere. The Council's concern for inservice teacher education is reflected in its membership in the World Confederation of Organizations of the Teaching Profession.

Since its formation in 1953, ICET members have conducted a variety of projects seeking to identify and respond to major social, political and developmental problems in order to affect continuing change and reorientation in the preparation of teachers. The Council regards institutions of teacher education and the teaching profession as a vital link between the intellectual activities of higher education and the vital problems affecting social mobility, economic viability, and human betterment - the quantum leap in aspirational goals of peoples in developing and developed nations.

The Council possesses a worldwide network of scholars and educators, coordinated by its secretariat, who can undertake projects of evaluation, curriculum consultation, surveys of educational needs and priorities and conduct conferences and workshops to examine and disseminate innovative teacher education concepts and programs for pre-service and inservice professional needs.

This volume, Innovation in Teacher Education: An International Perspective, is a cooperative venture of leading teacher educators in the United Kingdom, Asia, Africa, Latin America and the United States. Each of the authors was asked to describe and analyze the major innovative practice affecting the preparation of teachers in their institution.

The findings of this study, generously supported by UNESCO, will be the subject of the 1972 ICET World Assembly in London. The Council expresses its appreciation to the authors and editors for their contribution to the exchange of ideas within the world's teacher education community which this report represents.

David Johnston
President
ICET

FOREWORD

This volume includes a selection of thirty-nine case studies focusing on innovation in teacher education in Asia, Europe, Latin America and the United States. The case studies provide a description as well as a summary review of major innovative programs in a broad range of teacher training institutions.

The reader will note that the case studies are, first, selective - certain areas of the world were not canvassed and the majority of the contributions come from the United States. Secondly, the innovative programs are particularistic in the sense that in most cases the changes were not directed toward a total metamorphosis of an institution's teacher education program in all its phases; general education, professional studies, and clinical or field experience, but rather emphasized changes in specific components of a total program.

This volume is, therefore, not intended to be a comprehensive compendium of all innovative practices occurring in the world but rather a broad sampling, reflecting trends that are affecting and will continue to affect the education of teachers and other education personnel.

No attempt has been made to provide a comprehensive definition of "innovation." The diversity of techniques, and theories described in the case studies, support the contention that innovation assumes many guises each with its own rationale, relevance and utility. The growing prevalence of the term is partly a product of an era that is development conscious and change oriented. In this context innovation does not, inherently, offer final solutions since it is subject to an evaluation of its consequences in social as well as educational terms. Nevertheless, it is important to note that the world's teacher education community has responded with a considerable measure of creativity to the challenges imposed on education by the modern world.

The Council acknowledges its indebtedness to the many educators and institutions whose work is presented here. A special note of thanks is extended to three national associations who assumed major responsibility for soliciting and selecting case studies in their respective countries. These include the Indian Association for Teacher Educators, the Association of Teachers in Colleges and Departments of Education (United Kingdom) and the American Association of Colleges for Teacher Education.

ICET appreciates the financial support given to this task by UNESCO and applauds its continued efforts to improve the quality of teacher education and the teaching profession.

Frank H. Klassen
Executive Director
ICET

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PERFORMANCE BASED TEACHER EDUCATION

PERFORMANCE BASED TEACHER EDUCATION

No entirely satisfactory definition of performance based teacher education (PBTE) is available; in fact, there is disagreement as to whether the concept should be labeled "performance based" or "competency based", the latter term considered more comprehensive by some. Whatever it is eventually called, there is the beginning of a movement, most noticeable in the United States but with analogous efforts elsewhere, which emphasizes in rigorous detail the attainment of certain performance goals. The teacher candidate is held accountable, not for the successful completion of certain courses, but for the achievement of a given level of competency in performing the essential tasks of teaching. As with any general movement or trend, there are always cases in which the jargon of the new concept is adopted without the substantive changes to which the terms refer. Of the many American programs currently advertised as performance based, four are included in this document due to the widespread recognition of them as genuine, well-planned examples of the PBTE approach.

The essential features of the PBTE concept include (1) competencies (knowledge, skills, behaviors) to be demonstrated by the teacher candidate and derived from explicit conceptions of teacher roles, (2) criteria to be employed in assessing the demonstration of the competencies, and (3) the rate of student progress to be determined by demonstrated competency rather than by time or course completion. In addition, a number of other elements are often included, either theoretically or practically, in the PBTE movement:

a. *Instruction is individualized, personalized and modularized.*
b. *The learning process is constantly guided by feedback.*
c. *The program as a whole is systemic.*
d. *The emphasis is on exit rather than entrance requirements.*

Finally, as stressed throughout this document, PBTE is usually associated with a number of other new characteristics being implemented in American teacher education. For example, the PBTE program is nearly always heavily field-centered, broadly based in decision-making inputs (university/school/community), and open and regenerative i.e. a number of monitoring, evaluative and feedback devices, including a research component, are usually built-in. Protocol materials and modern technology are usually involved and the designing of the instructional systems is done by both the faculty and the students.

Many questions still remain unanswered concerning performance based teacher education. Pupil learning is an appropriate criterion for assessing the effectiveness of teachers, teacher trainers and training programs. But until relationships between teacher behavior and pupil learning are more firmly established, judgments will have to be made on a priori grounds. Nonetheless, the advantages of this new approach seem promising indeed: attention to individual abilities and needs; the focus on objectives and the formulation of these objectives in a broadly based, cooperative way; efficiency by means of constant feedback and evaluation; and the emphasis on student and program accountability.

RATIONALE AND IMPLEMENTATION OF A PERFORMANCE BASED TEACHER EDUCATION PROGRAM

Division of Education, Southwest Minnesota State College
Marshall, Minnesota, U.S.A.

Southwest Minnesota State College is one of the newest institutions of higher education in the United States. Five years ago the spot where the college now stands was a cornfield. Today, this cornfield has been transformed into new structures designed to educate students in new, exciting and promising ways. In June 1971, the first class graduated from Southwest. One group of these students had an unique educational experience. They are the graduates of one of the first competency based teacher education programs to be accredited by a State Department of Education in America.

When the formal planning for the new teacher education program began, one basic question was used: "What does a teacher need to know and be able to do in order to teach in the schools in the 1970's and 1980's?" Several key concepts emerged during these early planning stages:

1. Experiences provided within the pre-service education programs for teachers must reflect the change forces affecting society: the impact of technology, automation and cybernetics, the complexities of affluence, rapid transportation and communication facilities, alienation of individuals and groups, space explorations and discoveries, reshaping of value orientations, environmental concerns, Similar change forces and their effects on schools must also be reflected - modular scheduling, team teaching, non-graded and continuous progress curriculum, instructional materials, centers, learning laboratories, media and programmediinstruction, etc.

2. Emphasis needed to be placed on individualized programs of learning for teacher candidates. This assessment would call for a flexibility not yet realized in most pre-service teacher education programs, and all college programs; one which deliberately plans content and experience around individual differences and needs of students, which permits movement of students at different rates of learning and which places much more responsibility for learning with the student himself. Therefore, if the assumption is valid that students have different rates of learning and do have different learning styles, ways should be devised to individualize programs which will emphasize mastery of learning and not courses, credits, grades, per se.

3. Teacher education, then, must be systematically organized to lead to change in pre-service teachers and to teach pre-service teachers to teach for behavior change (learning) in their pupils.

These concepts seemed to indicate that programs for professional preparation of education personnel would need to be focused on five basic components:

1. Prospective teachers should be able to demonstrate, prior to certification, that they can perform the function for which they will be held responsible subsequent to certification. If competence is defined as "the demonstrated ability to perform a task", the curriculum needed to develop these competencies would be best defined by statements of performance capabilities of students. These performances need to be derived from the best forecasts of the real requirements of teaching in a variety of education environments. One of the major decisions that needed to be made at the outset concerned the nature of the evidence that would be acceptable that the student had indeed developed the desired compentencies. Two choices were presented: assess the products that derive from teacher behavior or assess the teacher behavior directly and infer that desired student outcomes would result. The staff felt the latter alternative was the only defensible one at that point in time. The teaching behavior could be assessed; the student products or outcomes would not be easily discernable and would offer no immediate feedback data for the emerging program. It needs to be pointed out, however, that the staff recognized that the ultimate criteria of competency evaluation should be based, at least in part, on desired pupil learning or outcomes rather than on teacher behavior, per se.

2. Educational institutions and agencies should join in full partnership with public schools in the professional education of teachers; means must be provided whereby schools can become directly involved in the preparation of persons responsible for their operation. To assume that competencies need to be demonstrated in both simulated and real life situations, a series of related questions arise: Who will determine the desired teacher behavior? Who will judge whether or not the teacher has achieved the outcomes desired? Who shall determine when a prospective teacher is ready to proceed and how? Who will determine when the prospective teacher is ready to enter the profession as a fully qualified and certified teacher? The change from what has existed is apparent. In contrast to being relative passive hosts to the student teacher, the schools will need to become actively involved at all levels of decision making relative to the program, and they will have to assume considerable responsibility for instruction and assessment in the program. Both require the performance of functions that do not now exist and the creation of competencies in public school staffs that they do not presently possess. The college's role in assuming responsibility for assisting teachers to develop these skills is apparent. Since the college will not construct or operate the traditional state supported laboratory school, it has been suggested that the resources normally provided for such a function be made available for working directly with public schools.

3. The program should be personally appropriate to those going through it; it should provide the means whereby prospective teachers contribute significantly to the shaping of the curriculum that is guiding their professional development or by which the college educational experience has personal meaning. Within limits, students should be able to make decisions concerning the competencies to be developed, the settings in which competence will be demonstrated, the sequence and pacing of learning experiences, and personal commitments to a life style and teaching style. It is anticipated that several bi-products will occur from a program which stresses personalized programs of instruction which independent, self-directed learners will develop. The basic assumption underlying this statement is simply that "teachers will teach as they have been taught," that when prospective teachers themselves engage in an educational experience in a way which gives it personal meaning and when they themselves become independent, self-directed learners, they above all others will be likely to create a similar kind of learning experience for others.

4. The component parts as well as the total program should be systematically designed to bring about specific, assessable outcomes; to provide continuous evidence as to the efficiency and effectiveness with which those outcomes are achieved; and to be adaptable on the basis of that evidence. The model suggested rests upon the commitment to a systems design approach to instruction. This process is based upon principles which are concerned specifically with the production of measurable and relevant learner achievements, while applying principles which can assure successful performance. It is totally learner centered. It is primarily concerned with the process of planning, directing and implementing programs which start with statements of performance criteria for student success and end with measures of student performance that reflect achievement of the performance specifications.

5. Inherent in all components is the concept of teacher-as-scholar. The need to know undergirds the development of most competencies. Equally as important in this model is the concept of teacher-as-person and teacher-as-professional. The human relations component of the program is essential. Students need to be treated as adults and as professionals. They can be trusted; they want to learn; they want to care and be cared about; they want to be treated with respect; they want to feel important. A positive self-image is a first prerequisite to becoming the humane teacher who can understand cultural and social differences in others, and who can provide the learning environment for others which promotes human dignity and rights.

The professional education program of Southwest Minnesota State College differs from most other teacher education programs in that both the content of the program and its mode of operation are designed to meet program objectives. The prospective teacher at Southwest does not experience a special collection of traditional courses in the "professional education" sequence, but finds learning objectives identified in performance terms, and is, himself, treated as an individual in the instructional process. These features appear in two major aspects of the program: in the instructional model used in the program and the administrative organization of the program.

The instructional management model has been most influential for developing the teacher education program at Southwest (See Figure 1). This model has not only helped the staff identify competencies needed for teachers, but also has provided a plan for organizing the curriculum. The five steps in the model have become the five major components of the curriculum; i.e., the teacher needs:

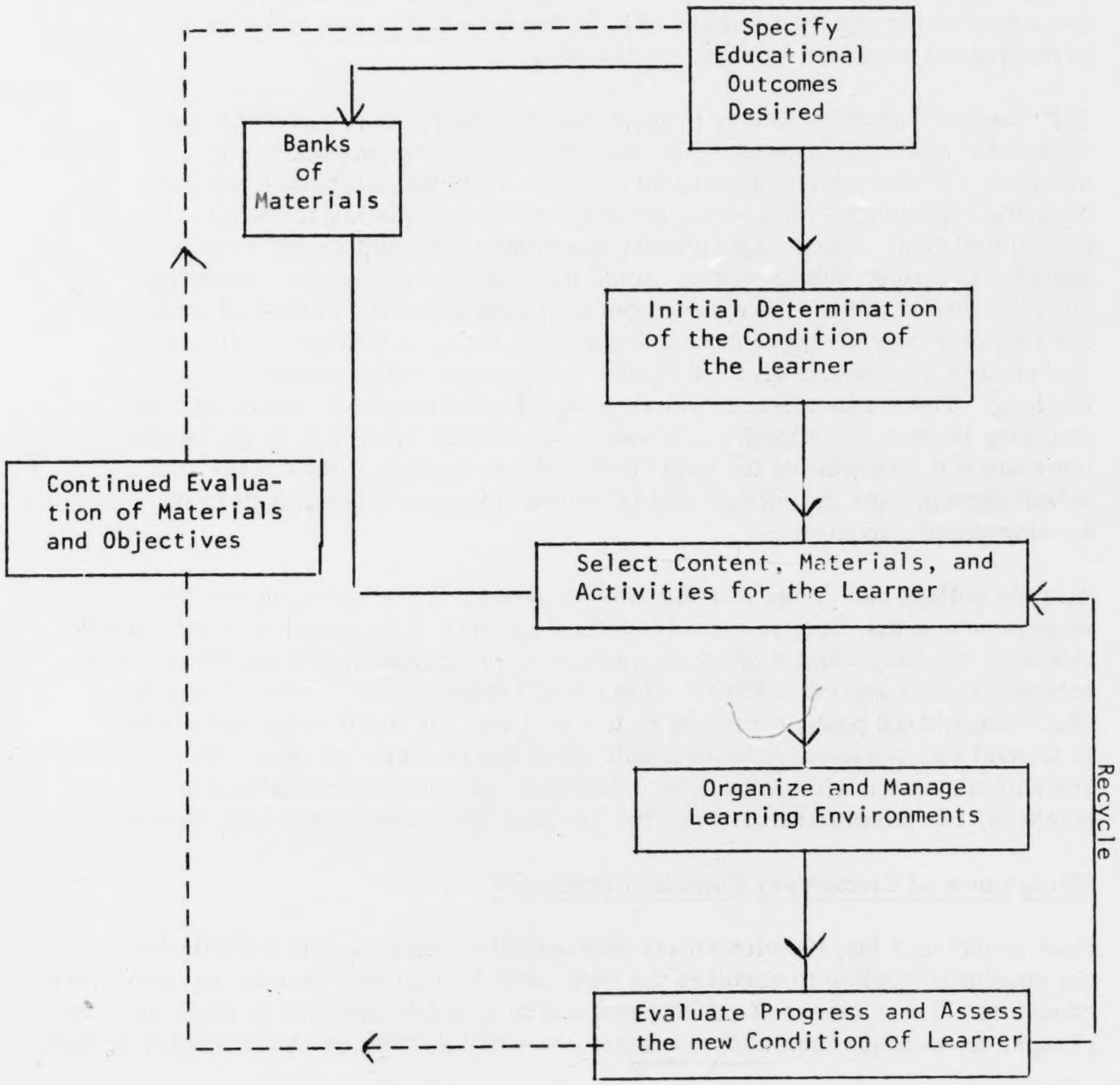
1. competencies in specifying educational outcomes desired in the modern elementary and/or secondary school;
2. competencies in determining the condition of the learner in relation to these specified objectives;
3. competencies in selecting, preparing and using appropriate materials, activities and reinforcements for the learner;
4. competencies in organizing and managing the variety of learning environments which promote personalized instruction; and
5. competencies in evaluation procedures to determine if mastery of educational objectives has been achieved.

The competency based model establishes procedures whereby individual students can develop their own individual learning programs. Students are able to select learning tasks appropriate to his own stage of development and are given appropriate assistance by the staff. The loop to the right in Figure 1 labeled "Recycle" is an essential feature in this process. On completion of a given task, a new assessment of and by the learner can be made and the cycle of activity selected and management repeated. As larger numbers of students complete the program, information concerning objectives and materials can be gathered for special categories of students who may have certain learning problems, or for students who may have unusual career goals.

Continued cycling of prospective teachers through the model has an additional effect of considerable importance. A goal of the program is to prepare the teacher to use the model in his/her teaching of young people. Because the graduate of the Southwest program will have experienced the model cycle a

INSTRUCTIONAL MANAGEMENT

(Figure I)


Specify Educational Outcomes Desired
Banks of Materials
Initial Determination of the Condition of the Learner
Continued Evaluation of Materials and Objectives
Select Content, Materials, and Activities for the Learner
Organize and Manage Learning Environments
Recycle
Evaluate Progress and Assess the new Condition of Learner

large number of times, it is hypothesized that he will continue to use the model in organizing learning experiences for students in the elementary or secondary school.

In a competency based teacher education program it is necessary that the model provide for a close working relationship with the public schools so pre-service teachers can have a realistic environment in which to try out and to test their skills and knowledge. In order to provide clinical experiences for the students in the teacher education programs, it was decided to enlist the support of area schools in developing Teacher Education Centers. A number of schools were approached during the fall of 1969 with the concept of the Teacher Education Center. It was agreed that the administrative staff, the school board and the teachers (90% of teachers had to vote in favor of participation) would need to approve the plan.

The Teacher Education Center concept encompasses both pre-service and in-service staff development. The pre-service component consists of intensive and extensive experiences. Briefly, students will have intensive on-going experiences where they are prepared to assume instructional responsibilities. These experiences, beginning in the junior year vary in number, duration, subject areas, grade level and age groupings, depending upon the needs, interests and developmental patterns of the individual student. Interspersed between these intensive experiences are a number of extensive experiences designed to give the student a broad and comprehensive view of teaching. These experiences vary from short observations to longer periods involving limited participation. These are carefully planned as to the needs, interests and strengths of the individual. The resources of the Center, the school system, and the college will be unified into a meaningful pattern of developmental experiences.

Both the college and public schools have responsibility for carrying out the in-service and pre-service aspects of the program. Two agencies to accomplish this are: a policy council which is made up of representatives from the member school districts and the college. This council makes overall policy decisions which concern all parties involved in the program. A coordinating committee is formed within each district to handle concerns involving planning, development and administration within that school district. Membership includes four teachers, two administrators, and the Teacher Education Center Coordinator.

Management of Elementary Education Programs

Upon acceptance into the elementary teacher education program at Southwest, the student is eligible to enroll in the first of five, 6 credit "blocks" in elementary education. These blocks of credits are used to schedule students in small advisee groups, to schedule continuing seminars, to schedule time in an elementary school in one of the Teaching Centers, and to record "credits" in the usual administrative mode. They are not designated according to any academic titles; i.e., they are merely referenced as Elementary Education Block I, II, III, IV, and V.

Upon enrolling in Elementary Education Block I, the student is assigned to an advisee group of 15-20 students who will be under the guidance of a specific staff member. The student will keep the same advisor throughout his program, unless the student specifically requests the change in advisors. The advisee group serves several important roles in the program management. Most importantly, it provides a humanizing dimension to the program.

In consultation with his advisor the student will develop a plan for his own professional development. It is the aim of this process to have the student, being governed by his own personal set of learning experiences, progress at his own rate of learning without the constrictions imposed by time schedule and course offerings. The learning objectives are agreed upon, the content, experiences, materials needed are identified, the criteria indicators are selected, and the options for attaining those objectives identified. Upon mastery of the objectives, the student proceeds to a new learning program. If mastery is not attained, the student is given assistance in developing further learning experiences aimed at mastery of agreed-upon objectives.

The student has several options open to him for completing the agreed upon performance criteria: he may use self instructional competency packages, he may attend seminars scheduled during each quarter to meet expressed students needs and/or he may devise his own independent study program according to his own style of learning. In all cases, however, performance criteria are agreed upon, and must be mastered.

Competency Packages:

To assist pre-service and in-service teachers to develop competencies in the areas listed above; i.e., selecting educational outcomes; determining conditions of learners; selecting, preparing, using appropriate content, materials, and activities; organizing and managing a variety of learning experiences; and evaluating student outcomes - the teacher education curriculum has been organized into competency learning packages (ComPacs).

Each ComPac contains the five steps of the instructional management model shown in Figure 1 above, and, in reality, is a prototype of the model in action. In selecting the competencies, according to the guidelines cited earlier, the staff drew heavily on their own experiences in innovative schools, on feedback from the advisory committee of public school personnel and on major studies of elementary teacher education programs. The curriculum materials are developed by individual staff members and by teams of staff members. Once a ComPac is written, it is duplicated and circulated to all staff members. After reacting to the suggestions from other staff members, the ComPac is rewritten and submitted to the Center Director for final approval before the ComPac is placed in the competency bank. The ComPac file or bank contains the total list of competencies available to the students. Although those presently on file at Southwest are primarily self instructional for the student, the file can also contain various group-centered activities, including the traditional classroom, if necessary. A sample ComPac is shown in Figure IV.

Evaluation

The grading system used within the Division of Education is consistent with the philosophy of the program; performance criteria must be met regardless of the length that it takes the student to achieve mastery. Thus the grades of satisfactory/unsatisfactory are used with the option for honors work that can be negotiated with the staff and/or advisor. The grade of "X" is used at quarter reporting periods to indicate work in progress if agreed upon goals have not been met by the student during that marking period. Ordinarily, the "U" grade is not used except in those cases where students have not met responsibilities in their public school assignments.

Student Feedback:

Student feedback has been systematically collected and has been used in the program. At the completion of each ComPac, the students is asked to complete an evaluation form. These evaluations are monitored by the staff and appropriat changes are made. Also, at the end of each quarter each student completes an assessment form. This evaluation data is compiled and analyzed by the staff. The findings are considered by the staff and are used as an aid to plan future programs. Consequently, the experiences have changed and improved because of student feedback and staff planning. Thus, the capacity for flexibility and change have been built into the teacher education program.

Clinical Experiences - Senior Student Teaching

The logical end of a performance based program is being able to demonstrate competence with many students, in many activities over an extended period of time. Each student, when judged ready by his advisor, is placed in one of the Teacher Education Centers full-time for a minimum of one quarter. The students already are, of course, well acquainted with the real classroom from various experiences in it all during the program. They are assigned to the coordinator, not a teacher, who decides along with that student and the center

FIGURE IV
SAMPLE COMPAC

SOUTHWEST MINNESOTA STATE COLLEGE
MARSHALL, MINNESOTA

ComPac A 1.0113 Writing Behavioral Objectives for a Specific Teaching Task

CONTEXT: Specify Educational Outcomes Desired

MAJOR SUBJECT: Educational Objectives

TOPIC: Writing Behavioral Objectives for a Specific Teaching Task

TARGET POPULATION: Pre-service elementary and secondary, in-service

BEHAVIORAL OBJECTIVES:

1. The student will write an appropriate behavioral objective to teach a specific learner a specific task.

PREREQUISITE: ComPac A 1.0112

TREATMENT:

Since this ComPac requires demonstration skill, no pre-test is available.

Observe one student having learning problems defined by the classroom teacher. In a written report describe the student, identify and describe the learning difficulty, and your reasoning for choosing your objectives. Write behavioral objectives to teach the specific task necessary to resolve this learning difficulty. Make certain your objectives are in behavioral terms as suggested in ComPacs 1.11 and 1.12.

EVALUATION:

Present written report to an evaluator. Be prepared to discuss it.

MATERIALS:

Classroom observation time is required.

QUEST: to be initiated by student; writing behavioral objectives for another student is a possibility.

coordinating committee what would be appropriate learning experiences. The emphasis is on a team approach with student teachers working along side of professional teachers, not in place of them. As the quarter progresses, student teachers are given more and more responsibility and are asked to perform the myriad of tasks a teacher must perform.

Student teachers are evaluated according to set criteria by the team of teachers they are associated with and the coordinator. The coordinator's major responsibility is to help provide skill training for cooperating teachers in supervision of student teachers and logistical support for appropriate experiences for student teachers, not the traditional role of supervisior. Additional student teaching time is prescribed for students who have not successfully developed competencies.

A three hour seminar conducted by the Teaching Center Coordinator is an integral part of the student teaching experiences. It is here that the student teacher's problems are discussed, that microteaching tapes are coded and analyzed, and that plans for self-approval are made.

Conclusion

The Southwest Minnesota State College teacher education program has attracted much enthusiasm from teachers, public school administrators and State Department of Education personnel. The staff has been asked to make presentations at such programs as the National Association of Elementary School Principals, the 1971 summer workshop of the Association of Teacher Education, conferences on performance-based teacher education sponsored by the AACTE and tne U.S. Office of Education at Houston and Denver (1971), the Minnesota State Convention of the Association for Mathematics Educators, the regional conference of Association of Science Educators (Milwaukee 1971), state conferences in Minnesota for personnel from the State Department and colleges, and numerous individual colleges.

This program activity indicates that there is tremendous interest in the competency based program in teacher education. Other institutions are considering implementation. Some State Departments are developing guidelines using teacher competencies for teacher certification. The fact that Southwest Minnesota State College program is in operation provides an unique opportunity (1) for evaluating an on-going model which attempts to provide for competency development in a personalized, field centered program and which utilizes the skills and talents of public school personnel from rural schools; (2) for disseminating information on this on-going model.

EDUCATING TEACHERS TO REFORM EDUCATION

New School of Behavioral Studies in Education
University of North Dakota
Grand Forks, North Dakota, U.S.A.

The Teacher Exchange Program

A major reason for establishing the New School was to initiate constructive change in the schools of North Dakota. Teacher education programs, even those considered most innovative, seldom have significant impact on public education in the regions they serve. That portion of a university committed to the preparation of teachers is often removed from the societal forces that effect change in the public schools. At the same time local school districts and the communities they represent do not make any meaningful contribution to the preparation of teachers. Often the contacts between the two agencies are peripheral and limited to placing student teachers, consulting, and conducting in-service workshops.

The isolation that has traditionally existed between the university and the local communities is being bridged in North Dakota by the establishment of co-operative working relationships between the New School and participating school districts. A major reason for establishing closer ties between the two has been the desire to upgrade the preparation of less-than-degree elementary-school teachers now teaching in North Dakota.

To achieve the objective of placing a qualified teacher in every elementary-school classroom in the state, a teacher exchange program was developed in co-operation with local school districts and the State Department of Public Instruction. Under this exchange program, a school district that formally agrees to participate with the New School temporarily releases a portion of its less-than-degree teachers so they may complete their college education. Each of these teachers is replaced by a fully qualified and certified teacher who is enrolled in a master's level internship program in the New School. The less-than-degree teacher is enrolled at an appropriate academic level in the Undergraduate Program and continues until his course of study has been completed. These co-operative arrangements are entered into at the initiative of local communities. The final decision is made solely by community representatives. These experienced less-than-degree teachers are selected jointly by the local school district and the New School; their participation is strictly voluntary. As part of the co-operative agreement, the local school district contributes financially to the New School program. These contributions represent a major source of the New School funding.

One result of the co-operative agreements is a close working relationship between the New School and individual school districts. The New School assumes increased responsibility for the quality of instruction in classrooms staffed by New School resident interns. The co-operating school districts in turn become more active participants in teacher preparation. Each organizations shares more in the responsibilities that have traditionally belonged to the other. By accepting New School master's level interns into its schools, the local community is expressing its willingness to allow alternative patterns of thought and action to be brought into juxtaposition with its more established ways. Thus the local community gains greater insight into what it is doing. By entering into a co-operative agreement, the local school district agrees to assist the New School interns in creating more individualized and personalized modes of instruction in its classrooms. In return, the New School pledges its institutional resources in support of the intern's efforts in the classroom.

An Alternative Learning Environment for the Elementary Classroom

There would be limited value in an alternative teacher preparation program and different university-community relationships if they did not lead to significant changes in teachers' practices. The program has to increase understanding of the processes of learning and their implications for teaching.

The New School supports the belief that each child's educational needs be considered as paramount and that flexibility so permeate the schools that the interests, abilities, and needs of each child be taken into account. The program of the New School aims at fostering this spirit of individualization and personalization among the teachers it prepares, experienced as well as prospective.

Central to the creation of a more individualized and personalized instructional mode in the elementary-school classroom is the provision for a variety of learning environments. Children in classrooms directed by New School resident interns can develop their skills, understandings, and appreciations in a number of interest or learning centers appropirate to the age of the children involved. Many varied tools and other stimuli that children themselves can produce and manipulate are provided in those centers. Children engage in a variety of activities, working both individually and in small groups. Each pupil progresses at a rate appropriate to his capacities, interests, and stage of development rather than at a rate prescribed by teacher, curriculum, or graded groupings. In this type of setting direct teaching is limited. The teacher's primary role is one of observing, stiumlating, and assisting children in their learning. In this setting, teachers must be prepared to diagnose the most common learning problems that children have and to work with individual children on those problems.

Structural Organization

The New School was created, in part, to test the validity of an alternative to the long standing separation of the liberal arts from professional education. The New School, from its inception in 1968, has operated as one structural unit. It has drawn together faculty members with diverse academic and professional backgrounds in the humanities, the social sciences, mathematics, the natural sciences, and a wide range of specialties in education. All faculty members share equally in the shaping of the academic program. Because of this unique structural organization, the New School is able to offer its participants all components of a teacher preparation program without the liabilities of traditional academic and professional distinctions.

The structural organization of the New School makes it difficult for faculty and students to fall back on the traditional dichotomy between liberal and professional education. The new structure gives promise of much closer co-ordination and interrelationship among the various elements of the program. The structure also provides a setting where faculty members, administrators, and students are forced to break away from the familiar standard categories. Because there are fewer familiar contexts, the problems, and at times the confusion, often appear to be greater. However, where participants are willing to open themselves to an "intersection" of their own points of reference with those of others, there are opportunities for more creative beginnings in teacher preparation.

Teaching-Learning Relationship

Many recent efforts at building teacher preparation models have focused on the identification of behavioral objectives for prospective teachers and on the application of systems analysis. In contrast to more traditional programs, this model provides students with a much more individually tailored program. Programs of this type are usually individualized with respect to point of entry, pacing, and sequencing. Still, the student remains passive. He does not direct his own learning. He plays little or no role in specifying the pupil outcomes desired, the conditions under which these outcomes can be realized, the competencies teachers need to provide the conditions necessary for learning, and the conditions under which the teacher competencies he has identified are realizable. The role of the faculty member toward the student remains essentially unchanged. The faculty member determines what is to be learned and how that learning is to be acquired.

The New School is co-operating with local school districts throughout North Dakota to introduce more individualized and personalized modes of instruction into elementary schools. To be effective in contributing to a change in elementary-school instruction, the New School believes its college program must become a model of the kind of environment it promotes in elementary schools. Operating on the assumption that teachers teach essentially as they have been taught, faculty members are continually looking for ways to personalize and individualize the college-level program. Students are continually encouraged to assume greater independence and initiative for their own learning. Success at this task, however, does not come easily. Many students prefer a more traditional setting where the requirements for learning are prescribed by the faculty. It is particularly tempting for faculty to respond to this student preference. Moreover, it is difficult for faculty to restrain themselves from prescribing what they feel is necessary for the preparation of each student. The unitary structure of the New School is quite helpful in coping with these problems. Faculty members bring a variety of perspectives as to what is valuable and thus create an environment where the thinking of students becomes vital. During the short time the New School has been in existence, we have learned that to get students to participate in decisions on their own learning the academic program must have openness built into it. Instructional objectives cannot be so firmly set that the student contributes little or nothing to his conception of a good teacher or to the determination of the tasks to be undertaken in preparation for that role.

Academic Program

The total New School effort-including undergraduate, master's, and doctoral levels-has two basic, but interrelated types of programs. One is concerned with the education of teachers and the other is concerned with the education of teacher educators. The undergraduate program - which begins in the Junior, or third, undergraduate year - is a preparation and retraining program for prospective and experienced elementary school teachers. Upon successful completion of the undergraduate phase of the program, these students receive a baccalaureate degree and full teacher certification. Many of the graduating Seniors, along with other baccalaureate degree teachers from co-operating districts, proceed to the master's level program, which has as its core a year-long resident internship in one of the co-operating school districts. The master's degree program serves in a dual capacity - to prepare master teachers and to prepare teachers of teachers. In some school districts, the New School master's level teachers are beginning to serve as teachers of other prospective and practicing elementary-school teachers by the example they set in their own classrooms and through their co-operative teaching effort with other prospective and practicing teachers.

The doctoral program is designed to prepare individuals who have academic and professional background in elementary education for positions in the state colleges and in local school districts as teachers of teachers. Some doctoral students are returning to their former colleges to become teachers of teachers and in some cases to assume positions of leadership in that role. Others are going to local educational agencies where they are able to work directly with practicing teachers in improving the quality of instruction in the elementary schools of that district. The maximum number of participants for these three phases is two hundred undergraduate, one hundred master's, and fifteen doctoral students.

During the two-year period that the New School has been in operation, the undergraduate program has undergone several changes. The faculty and the student body have had the opportunity to experiment with many alternative patterns of instruction. Some definite directions in program have emerged. One significant gain made during the previous semesters has been the establishment of functional advisor-advisee relationships. There is a consensus among the faculty that this basic tie between students and faculty should be retrained, strengthened, and broadened. To strengthen and broaden this relationship, the student and his advisor have been given the responsibility for planning and evaluating the student's entire academic program. Under this arrangement, several possibilities have opened up to students. Faculty members design activities that they feel will contribute most to the total preparation of teachers. Some activities are organized jointly with other faculty. Students, planning with their advisor, can choose to become involved in a number of the faculty-organized options. Or the students can choose to initiate activities that are conducted independently of the more formally organized activities. These independent studies are undertaken with the advisor or in association with some faculty member in whose area of specialty the student wishes to study. Again, the determination of what a student is involved in and the way in which he is involved has become the decision of the faculty advisor and the student. It is through this unorthodox advisor-advisee relationship that the faculty of the New School is trying to facilitate greater involvement of the student in defining and evaluating his own learning. As this relationship is developing, both advisor and advisee are struggling in an authentic way with the question of what the student should do to prepare himself for teaching. The faculty member and the advisee must work together to increase their abilities to intelligently define educational goals and evaluate student progress. They must give thoughtful consideration to the students' interests and previous academic and professional background.

It is difficult to define with any specificity the content and the organization of the undergraduate program. Students come with diverse backgrounds; some are experienced teachers with many years of experience but with no baccalaureate degree, while others are prospective teachers with little understanding of the complex process of teaching. Academic backgrounds also vary widely. Even within a single group, student activities will not be uniform, simply because student needs differ. What is sought from any group structure is a higher degree of interaction among a diverse faculty as members interact with students. Also sought from any group structure is closer personal contact between students and faculty to create an academic program that is more responsive to the needs of individual students as they prepare for teaching.

The undergraduate program is interwoven with clinical experiences involving elementary-school children. Every attempt is made to tie what is learned in the college classroom with the practical experience gained in working directly with children. Juniors and Seniors gain their clinical experience in classrooms of fifth-year interns where they are involved almost immediately with children. We stress that the relationship between the undergraduate and the resident intern be one of colleagueship and not the mere traditional supervisor-student teacher relationship. Undergraduates are urged to do joint planning and co-operative teaching with the intern. Although the intern teacher is ultimately responsible for the classroom, both he and the undergraduate are students, and as students each must be willing to open himself to ideas of the other. In this way, each can contribute to the education of the other. Any supervision that is necessary in this situation is given by the clinical professor, advisors, and the co-operating principal.

In the fifth college year, the master's degree student participates in a year-long resident internship. As a full-fledged member of an instructional staff each intern undertakes full responsibility for teaching in a co-operating elementary school. This internship is designed to permit each student the opportunity to investigate the general hypotheses that have grown out of his study, observations, and earlier involvement with children. The internship affords the student the opportunity to refine his skills and practical insights into the nature of learning and to reinforce his commitment to the individualization and the personalization of learning through his own teaching.

Besides serving a resident internship, each master's degree candidate spends two consecutive summers in academic study. The summer session immediately prior to the internship is spent preparing for that experience. Upon completion of the internship the student returns to campus to study in areas where the need is greatest. In addition, all master's level students engage in an individual research activity that culminates in an independent research project. During the internship period the students participate in a continuing seminar on educational problems unique to their own elementary-school classroom.

The success of the total New School program depends, in large measure, on the ability of the master's level interns to introduce new modes of instruction into co-operating school districts. For our program to have any lasting impact, our interns must relate differently to children, and this change in relationship must be productive of the educational objectives identified earlier.

In the doctoral program, each student's schedule of activities is planned around his academic and professional background and his future plans as an educator of teachers. The student works with graduate faculty advisors to plan an individual program of study tailored to his needs, strengths, and previous education. The individual programs that are developed tend to reflect the interdisciplinary quality of elementary education and the contribution of many areas of knowledge and understanding to teaching in the elementary school. All activities are conducted in close relationship with what is occurring in elementary-school classrooms. This linkage between college study and elementary schools prevades all phases of the program, including course study, research, clinical experience. A related prerequisite of every doctoral student's program of study is internal consistency or unity among the major elements mentioned here.

All three parts of the New School program - undergraduate, master's and doctoral - are interrelated, each contributing to the strength of the other. Most doctoral students, for example, gain their clinical experience by working in the undergraduate program and by joining the master's interns in the field to work directly with children. The research carried on by the doctoral students is closely tied to activities of these other two groups of students. In turn, the undergraduates and the master's level students draw on the doctoral candidates as resource persons. The master's level students contribute to the undergraduate program by opening their classrooms for undergraduate field experiences. Similarly, the undergraduates, by actively participating in intern classrooms, contribute to the intern's efforts to change the nature of elementary-school instruction. As a consequence of these interrelationships, each level of the program makes a significant contribution to the education of teachers and to the education of teacher educators.

Faculty members not only work with undergraduate and graduate students in activities involving their own academic strengths but also join students in the field experience. Contact with children in an elementary-school setting has helped many faculty members especially those with liberal arts backgrounds, gain a better perspective of their own contributions as well as those of the students.

After two years, faculty and students are still struggling to increase opportunities for interrelations among the different areas of learning, to establish closer ties among diverse faculty, to encourage more substantial contacts among students and faculty, to aid in devising a more effective means of linking academic studies with practical experience gained in working directly with children, and to increase opportunities for individualizing and personalizing the instructional program. Some faculty and students have encountered difficulties and frustrations in operating under this new structure. Yet for most the new structure has opened up new possibilities and broadened individual horizons. Many faculty are exploring more integrated and/or interdisciplinary approaches to learning. Some are also trying to model in their own classes the positive values inherent in the self-contained elementary-school classroom. Faculty members, for example, often join with students in the pursuit of learning in areas beyond their own specialties. In this kind of situation students must be willing to capitalize on the faculty member's efforts to move beyond his own specialty. And students have to be willing to share more of their own learning with their fellow students.

Vito Perrone
Warren Strandberg

COMPETENCY BASED TEACHER EDUCATION

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In August 1971, the University of Houston initiated an extensive program to change the scope and direction of teacher education. The program was competency based, personalized, designed through systemic procedures, regenerative, field and campus-centered, and operated by a consortium. During this past year faculty and graduate students of the Colleges of Education and Arts and Sciences have teamed with personnel from the Houston Independent School District and Region IV Education Service Center to develop the first phase of the programs. Funded by the U.S. Office of Education, the project is part of a statewide effort initiated by four universities to study and test competency based teacher education and certification.

Allen Toffler, in his best selling book Future Shock, relates the vast changes which are transforming every aspect of American life. Transience, overchoice, and rapidly accelerating change characterize today and the future as they never did the past. Within this context, educational systems for children and youth and consequently for their teachers which may have been appropriate at one time are no longer viable; neither is the patchwork approach to improvement so often used in the past to mend the curriculum fabric. The new program attempts to examine every aspect of the teacher education process, and to design a program for the future.

Most preparation programs in teacher education are characterized by their lack of unified, cohesive, directed efforts. There is a distinct lack of interrelatedness as many individual faculty in several departments each go their separate ways. The mottled patchwork called a curriculum often is a jumble of contradictions, feats, old wives tales, unexplained and undefined theories, and little translation of theory into viable practice. Consequently, even that practice cannot be used to improve the student or the program.

Much of resulting teaching relies on intuition, with the more perceptive teachers being more effective, not because of the training program but almost in spite of it. Reliance only on the intuitive person suggests that there is no distinct discipline of teacher education, and never could be. It is suggested that teacher education programs, and their systematic improvement, rest on three propositions:

(a) That individual prospective teachers, teacher-trainers, and teacher training programs can be systematically improved through a designed process in which experience is assessed and used as the basis for change.

(b) That the rational approach to making decisions can lead to improvement in people (prospective teachers, in-service teachers, and teacher educators) and in programs (for pupils and for teachers).

(c) That teaching is an applied behavioral science, thus effective teachers are effective students of human behavior.

The 64 students selected to take part in the experimental training program began the program with a week-long retreat. During that period they formed teams of four persons to explore various problems and to build a base for interaction during the coming 2 years. They completed a personal assessment inventory which had been designed over the past decade by the University of Texas Research and Development Center for Teacher Education. Interpretation of these data will be made to students by trained counselor educators throughout the program. These counselors also will be available for personal counseling and professional feedback to prospective teachers as they interact with pupils. The first of a series of video-taped teaching experiences was completed and critically assessed by the teacher education staff and peers. And last, requirements of the preparation program they are in were explained.

During September and October, these prospective teachers underwent a series of visitations, observations, structured experiences, and seminars designed to help them make career decisions. "What is teaching?" "What are elementary and secondary schools like?" "Students?" "Teachers?"

Following these exploratory experiences, students focus on two thrusts: demonstration of teaching skills and understanding human behavior. Among the competencies they are required to exhibit in the first area, for example, is the ability to lead class discussions using higher order questions, non-verbal cues and inquiry techniques. In the second area, students demonstrate their understanding of concepts and analysis skills from the behavioral sciences, including psychology, anthropology, cultural economics, linguistics, sociology, and cultural geography. A major premise of the program is that teaching is an applied behavioral science; understanding human behavior and acting on that knowledge is basic to teaching.

Throughout the program the emphasis is placed on demonstrating teaching competencies. Competencies may be demonstrated at one of three levels: cognitive, performance, or consequence. With objectives at the cognitive level, the prospective teacher demonstrates knowledge and intellectual abilities and skills. With performance-based objectives, the student is required to do something rather than simply know something. While contingent upon knowledge, performance-based objectives place the emphasis on observable action. In consequence-based objectives the participant brings about change in others. To assess a prospective teacher's ability to teach, the achievements of pupils taught by the teacher are examined.

In the new program greater emphasis is placed on performance and consequence objectives than on cognitive objectives. What teachers know about teaching seems less important than their ability to teach and to bring about change in children. Since many of the competencies are demonstrated with children, a close working relationship has been developed with six portal schools in Houston.

The "learning module"--composed of specific objectives, a prospectus, alternate enabling activities (with student-identified activity as one option), pre-assessment, and post-assessment--is the instructional unit in the program rather than courses. Self-pacing through the program, coupled with student-advisor selection of competencies to be demonstrated, combine to make the program individualized. In addition, personal-professional counseling is provided students by counselor educators. A personal assessment inventory provided initial data for a series of individual conferences. Micro-teaching lessons are critiqued by a curriculum specialist and a counselor who consider teaching content, strategies, and interaction.

Students demonstrate competencies in ever more generalized situations in the program. They are first demonstrated as part of individual modules, then in a synthesizing experience where several competencies are related and demonstrated in consort. Internship becomes the period when all competencies are demonstrated in an unrestricted setting where the student has both responsibility and authority in the classroom. Observation by representatives of the profession is guided by the listing of unique competencies each student has mastered. Internship involves two time frames. The first provides unrestricted feedback to the student so that he can re-enter any modules which are yet needed, or for which the competency was not adequate. Feedback loops are also provided from each of the synthesizing experiences.

Even as the first students begin interacting with the program modules, and as the staff continues to develop the first draft of materials, plans are being drawn for revisions. The program will be continually evaluated, with those assessments fed back into program development. This cyclic approach, including developing, testing, and revising, should provide for a regenerative program to meet evolving needs of tomorrow's schools.

W. Robert Houston
Robert B. Howsam

THE INDIVIDUALLY GUIDED EDUCATION/TEACHER CORPS PROGRAM

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In recent years increasing efforts have been made to move a larger portion of teacher education from the university to the public schools. In 1968, the College of Education at East Tennessee State University established a Division of Laboratory Services to promote and coordinate this trend. The division includes a twelve-grade laboratory school on campus; the placement of more than 500 student teachers per year in a dozen public school systems in neighboring communities, the placement of several graduate interns in supervision, administration, and teaching; the coordination of pre-professional laboratory experiences for undergraduate students prior to entry into student teaching or internship; and the IGE/Teacher Corps program.

This Teacher Corps program led to the development of a close relationship between several schools and the university. The program is designed to implement the competency-based education (CBE) concept. Courses, credits, grades, and hours as traditionally experienced have been eliminated for components, modules, module clusters, behavioral objectives and a variety of performance modes for meeting the program requirements, most of which are school centered. The Teacher Corps/IGE schools are implementing team teaching, differentiated staffing, non-gradedness, and individualized education (continuous progress) for all students. The university has placed not only graduate interns in the schools, but also student teachers, and many undergraduate students enrolled in pre-professional courses designed to include field experiences. Milligan College and Virginia Intermont College have joined in this effort by providing undergraduate student aides and student teachers. The total program holds much promise in that the Portal School concept will be implemented in the 1972-73 school year, insuring continued and increased cooperation in teacher education between the public schools and East Tennessee State University.

Fifty-one interns are currently enrolled in components, modules, and module clusters, based on behavioral objectives which may be achieved by performance in a variety of models. Much of the instruction is on-site and includes working with regular teachers and unit leaders, as well as student teachers and aides. In all, the IGE/ Teacher Corps program includes eight schools, twenty-five unit leaders, eighty-nine regular cooperating teachers, forty student teachers, two hundred aides and 3,250 pupils, in addition to the fifty-one interns.

The lines of authority are illustrated in the diagram on page 23 . As may be seen from the diagram, there are three key groups involved in this large teacher training operation. Each of these, the local education agencies, the university, and the community, have certain objectives, responsibilities and roles, which are listed on the next page in outline form:

IGE/TEACHER CORPS PROGRAM
EAST TENNESSEE STATE UNIVERSITY

LINE OF AUTHORITY

Local Educ. Agencies (3)	University	Community
Supts. of Schools (3)	Dean, College of Educ.	Parents

Project Director

3-School Coordinators

8-Principals

25-Unit/Team Leaders

89-Teachers

51-Interns

40-Student Teachers

8-Aides (Paid)

220 Volunteer Aides

3,254-Pupils

Reaching Objectives include:

a. Local Education Agencies (LEA)

1. Will provide an internship in which teachers in training will work in a total school setting where theoretical knowledge can be applied and tested and where competency in teaching skills can be developed and assessed;

2. Will develop a team structure in which interns and other school personnel work with an experienced teacher as their team leader, who will be responsible for the guidance of interns in development of their teaching competencies;

3. Will utilize Teacher Corps personnel to introduce team teaching, differentiated staffing, non-gradedness and individualized instruction as regular elements of future school organization;

4. Will cooperate with the university to develop specific competencies desired in teachers who work with low-income children;

5. Will cooperate with the university to recruit and select interns who, upon successful completion of the training program, will be given priority for available teaching positions in the systems;

6. Will specifically implement a variety of team teaching designs which include the internship as a vital element;

7. Will prepare team leaders for future roles as senior members of differentiated staffing designs;

8. Provide a new type of in-service training for regular teachers, first-year teachers, and paraprofessionals;

9. Will support community-based projects relevant to the education of youth, and interns, developing a variety volunteer-assisted program;

10. Will maintain the educational and financial effort for services to low-income children that would have been exerted without Teacher Corps.

b. The Institution of Higher Learning (IHE)

1. Will develop a teacher education program which will be dependent upon the ability to exhibit desired teacher competencies, with student self-pacing, alternate learning routes, and greater student initiative in general;

2. Will work in a partnership with local schools and communities to provide a real internship experience;

3. Will specify the teacher competencies to be developed and demonstrated by interns and regular student teachers who work with disadvantaged youth;

4. Will develop a systematic planning schema for program implementation;

5. Will develop a series of modules in a new university-approved program to replace the old course structure for teacher certification;

6. Will utilize systematic feedback and evolution techniques designed to provide for continuous and constructive program modification;

7. Will provide for more personalized learning and increased student responsibility for his own learning;

8. Will assist LEA's to establish "portal schools" through which all beginning teachers will enter the profession in the respective systems;

9. Will involve the total university--particularly the College of Arts and Sciences--in the new teacher education program;

10. Will utilize university instructors on-site in schools and the community, awarding credit for community-based efforts, directed not only by IHE staff but also by local school staff and community representatives.

c. Community-Based Education

1. Will include a wide variety of projects designed to augment in-school instruction--i. e., tutorial centers, training youth to tutor youth, adult education programs, recreation and craft projects, child care centers, etc.;

2. Will develop increased parental involvement in the child's learning process, including participation in decision-making processes;

3. Will utilize local resources for providing a better education for low-income youth;

4. Will establish a total home visitation program;

5. Will develop an informative public relations element between the community, the school, and the university.

In this program, the primary operational group is the unit which composed of, on the average, one unit leader (usually a master teacher in the school), four regular teachers, two interns, one or two student teachers, nine aides, three or four other specialists, and about 130 pupils. Perhaps the best way to group the complex nature of this program is to examine the role of the unit leader.

Unit Leader Responsibilities

While the unit leader has numerous responsibilities for his total team operation, he must continually be concerned with inter-personal relationships among interns, cooperating teachers, pupils, and others involved in the teaching-learning process. He must be aware of, and active in, the strategies and tactics for program development and be concerned with problems in communication to include verbal and non-verbal behaviors. It is imperative that the unit leader continue to demonstrate his teaching ability both through observed sessions and microteaching.

Although no priority can be placed on the order of responsibilities, the unit leader will:

1. Serve as a member of the Instructional Improvement Committee by meeting on a regular weekly basis with the principal and other unit leaders;
2. Work with and assist other members of this Committee in developing plans and determining objectives for the entire student population in order to facilitate grouping for instruction;
3. Determine behavioral objectives, with assistance from other members of his unit, for all students within his unit;
4. Conduct planned weekly unit meetings to coordinate all activities of students and teachers within his unit;
5. Initiate and coordinate unit planning, instructional activities, and the development of at least one learning activity package each week;
6. Plan and organize activities for incorporating special teachers into total unit instruction;
7. Interview and place student teachers assigned to his unit to offer them the widest experiences possible and to permit him maximum observation time;
8. Survey the materials available for instruction in the Instructional Materials Center and requisition, if necessary, materials and supplies sufficient for total unit teaching;
9. Teach a minimum of one-half of each school day to permit observation by interns, regular teachers, and student teachers;
10. Observe each member of his unit for a minimum of 30 minutes each week, develop an observation analysis sheet to reflect the verbal and non-verbal behaviors, and conduct a counseling session of the strengths and weaknesses observed;

11. Observe and supervise aides and para-professionals assigned to his unit by meeting at least once weekly with each;

12. Provide for large group instruction and independent study;

13. Provide diagnostic assistance for students of his unit;

14. Conduct research, at least quarterly, dealing with curriculum development and teacher-pupil behaviors;

15. Provide assistance in teaching and supervising students of other units while their respective units are conducting unit meetings;

16. Assist community coordinator in planning and supervising interns in community activities;

17. Conduct home visitations with interns and other unit members;

18. Promote parental involvement of in-school and community activities;

19. Coordinate all evaluation procedures for pupils within his unit;

20. Serve as liaison between university and interns;

21. Assist in and conduct in-service training programs for other members of the system;

22. Submit reports, payrolls, report of team activities, and behavioral objectives;

23. Attend all scheduled meetings of both administrative and instructional nature, to include seminars on a weekly schedule.

The functioning of this program requires continual communication and cooperation among all the concerned parties. Many problems remain to be solved, but the experience to date has shown that teacher preparation can be improved, particularly in the areas of motivation and skill acquisition, by moving it into an integrated school/community/university type of operation.

INSERVICE EDUCATION

IN-SERVICE EDUCATION

Continuing or in-service education is commonplace in all educational systems. Its availability is a direct result of the incomplete character of initial training experiences and the changing nature of educational knowledge. On the other hand, unique patterns of educational recruitment in the last decade have resulted in considerable numbers of teachers with only marginal training and/or qualification. On the other hand, the phenomenal growth of knowledge about human behavior, subject matter and educational media have made obsolete so much of what has been taught and the way it has been taught. This knowledge explosion has been compounded by the revolutionary character of society and a whole array of new demands made upon the school and teacher for both relevance and excellence.

Another problem has been and continues to be that where innovation has occurred in teacher education, it has focused mainly on improving the initial basic training rather than on continuing training as such. In-service teacher education continues to be thought of in terms of a vacation past-time or as an arduous evening chore structured around credits, classes and the availability of university staff to teach their regular courses. Thus, in-service education is traditionally conceived only from the perspective of the college of education and not with any real regard to the interests and needs of the practitioner as defined by practicing teachers and their employers. This is a particularly critical issue in discussions of professional governance in both the United States and the United Kingdom as teacher organizations seek the power to influence and/or structure in-service colloquia, practicums and seminars that will gain a parity of acceptance with regular university programs.

The following case studies (Portland and Appalachia) are unique variations on the theme of in-service education in that they describe how faculty development occurs in two American universities.

Finally, we would be remiss if we failed to indicate that a significant aspect of the whole Portal School concept (described in numerous studies in various other sections) relates to in-service education. In such settings, the practitioners who will work with and receive pre-service teachers undergo a major training effort to prepare them for such roles as well as work with university and/or training college faculty in an ongoing dialogue about educational problems and their solutions.

SELF-SUSTAINING CONTINUING EDUCATION FOR TEACHERS OF MATHEMATICS

San Jose State College
San Jose, California, USA

A strong program of continuing education should include the development of self-reliance on the part of the participants. Inasmuch as no course is complete in itself, it should contain the seeds of further learning which can be nurtured long after the course is completed. At San Jose College, the Comprehensive Program in Mathematics (sponsored by the U.S. National Science Foundation) includes projects in which the "seeds" are in a package labeled "preparation to teach teachers". The basic premise of the program is that anyone who teaches his colleagues almost invariably is learning in the process.

Academic Year Institutes

One project has a ten year history; during this period approximately two hundred experienced secondary school teachers had a year of full-time study in an Academic Year Institute supported by the National Science Foundation. In conjunction with their study of university level mathematics these teachers also studied the mathematical curricula of elementary schools and received preparation to teach mathematics to elementary school teachers. Most of them have done such teaching after they left San Jose State College, and have thereby spread the effect of the project. More important, they have engaged in activities which indicate a remarkably high rate of continued learning.

There have been many who have gone on to obtain advanced degrees. (The A.Y.I. is not a degree granting program, and only a small percentage had a master's degree when they enrolled). At least sixteen of those from the first hundred participants now have college teaching positions, and six of them are known to have completed a doctorate. There are other less formal signs by which former participants have shown themselves to be among the most active and alert teachers in the profession. Publication of texts and journal articles, the direction of special and experimental teaching projects, important roles in mathematics teachers' associations and assignment to consultant and supervisory positions are some of the indicators. In essence, follow-up reports show that preparation to teach teachers, whether it is actually utilized directly or not, is one of the most effective means to promote continuing education.

Summer Conferences

There have also been one month summer conferences for teachers who were already well prepared mathematically. These teachers were given an opportunity to learn about teaching teachers, and to plan in-service programs. A significant component of these conferences was the emphasis for self-direction and use of resources other than a professor or a textbook. All participants did independent library research and explored various sources to find and evaluate the types of material available to the average teacher. Extensive use was made of mathematical journals, teacher's manuals for school texts, books designed for supplementary reading for students and teachers, games and manipulative devices with their accompanying manuals and theoretical justifications, films,overhead projectuals and other visual aids. In short, those materials which can be used by a teacher during his or her entire career.

In these conferences, as in the Academic Year Institute, the challenge to find ways of teaching teachers was an incentive to find ways of learning for oneself. After all, if one is looking for useful materials of interest to colleagues it is highly probable that one will find sources of knowledge that are new tc oneself. Furthermore most of the activities he plans to direct are the type that demand self-direction on the teacher's part.

In-Service Course Preparation

The most recent project of the Comprehensive Program at San Jose State College is a further extrapolation of the premise that teaching is learning. With the endorsement of the California Mathematics Council, a series of in-service courses to be taught by teachers throughout Northern California are being organized. In addition to the obvious result of instruction for a few hundred elementary school teachers, there is the benefit of strengthening the abilities of a few dozen teachers who are already knowledgeable and qualified. That is to say, the project offers leadership training through reinforcement. It gives internships and consultant help to high quality teachers, so that they can sustain their self-education and nurture the seeds that were planted during their previous training.

There are three levels of assistance in this project. Associate instructors have a professor who shares the responsibilities of a given course, so the teacher serves as an intern. Other teachers have full responsibility as course instructors; they receive preliminary help in planning the course and locating reference and resource material. At a more modest level, there are a larger number of teachers who serve on planning committees. Their supervised activities in deciding upon course outlines, and examining learning aids offer strong guidelines and incentives for their own learning. It also encourages study by colleagues with whom they work closely, because the courses are planned with their needs in mind. At all phases of this project, the staff of the Comprehensive Program is available as consultants to bolster, guide, or otherwise assist those at any level of the program.

The concept of life-long learning has many faces. This article puts forth the proposition that a good teacher is often his or her own best student. Therefore, to encourage a teacher to teach teachers is to stimulate a self-sustaining learner.

Leonard Feldman

CORRESPONDENCE COURSE IN TEACHER EDUCATION

Central Institute of Education, University of Delhi
Delhi, India

In order to alleviate the problem of large numbers of untrained teachers in the secondary schools of India, various programs of inservice education have been initiated. In 1965-66 it was decided that the most effective way of upgrading these teachers was to create a special program that would result in the awarding of a Bachelor of Education degree. Since these teachers were employed in the classrooms of Delhi on a daily basis and needed to retain their salaries, it was decided that new patterns of instruction and new kinds of requirements would be initiated. It was determined that a special correspondence course would best meet this situation.

In 1966 the Central Institute of Education started the first such course. Some of the features of this innovative program were:

(a) The course would last sixteen months (seven months longer than regular courses);

(b) It would culminate in the awarding of a Bachelor of Education Degree;

(c) The course would be open only to experienced teachers, employed in recognized educational institutions, preferably in secondary schools.

(d) The course would not consist only of correspondence instruction. There would be an elaborate contact program in which the students would be expected to attend one summer course of eight weeks taught by Institute staff.

(e) The syllabus and the degree awarded to the students of the correspondence course would be identical with those for the regular students.

It was determined that the program would consist of three clear-cut parts, i.e., theory papers, practice teaching and practical school assignments.

Once the students are enrolled they are called to the Institute on Sundays during the months of January and February. Lectures on general subjects pertaining to education are given on these Sundays. The objective is to orient the students towards the study of education.

After that, during the succeeding two months, Correspondence Lessons pertaining to the compulsory theoretical papers are sent to the students.

These lessons would be related to (1) principles of education, (2) educational psychology, (3) modern Indian educational development, (4) methodology and the teaching of the academic subjects, and (5) a series of miscellaneous topics ranging from "backward children" to "school library organization". The students' responses are received, corrected and are sent back to the students.

An eight week lecture-based summer school is organized during the months of May and June. Instructional work about some aspect of the theory of education serves as the focus for this summer school aspect of the course. Following this, the students are engaged in three types of activities, namely:

(a) getting correspondence lessons and writing their responses,

(b) practice-teaching, and

(c) completing some of the practical work assignments.

Early in January, the "University Examination in Practice Teaching" is held and the correspondence lessons continue to be sent till the end of February. The students in the meantime are requested to send in some of their difficulties in the areas of the theory papers. During the month of March, the students are again invited to assemble in the Institute on Sundays and regular classes are held for them during this period. The objective of these classes during this period is specifically to remove the difficulties that arose in their theoretical lessons. They have their final "University Theory Examination" during the middle of April.

The theory part of the program is covered essentially by correspondence. The theory papers, which total five in number, are divided into units with one lesson for each unit. Each paper has about 35 lessons. Lessons are sent to the students periodically, about three to four lessons per week. Each lesson has in it two sets of questions: one set consists of general objective type questions meant to provide a self-check for the students. The second set consists of questions to which written answers are required. The students are given a fortnight in which they should send back their responses.

The responses received from the students are checked, corrected, reviewed and assessed by the part-time personnel (called Guides) employed at the Institute. Before a Guide begins correcting responses of a particular lesson, he is expected to read the lesson carefully, to read the related literature and be well equiped with the material discussed in that lesson. He then discusses it with the other members on the Institute's staff. The discussion with the staff is held after he has looked into about five to seven response-sheets on his own.

The Guides have been advised to be very punctilious and careful about correcting the response-sheets. Merely "satisfactory", "good", "poor" or just tick-marks or crosses are discouraged. It has been made very clear that the remarks given should be helpful and constructive, e.g. merely writing 'irrelevant' against an answer does not help the student to find out why his answer was irrelevant or what would be the relevant answer. The remarks normally given are such that the student comes to understand what he should have done. For instance, "You have missed the following points, ...; please read paragraph number_____ or page number _____ of the lesson, or please read page number _____ of the text." Frequently, a model answer is also sent to the students.

The practical work involved in the Bachelor of Education course is extensive. It includes preparation of audio-visual materials; participation in a number of psychology practicums, which may range from observation of a classroom to the administration of intelligence tests.

In addition, co-curricular activities, physical education, tutorial discussions and essays, the preparation of examination papers, and critical study of syllabus and textbooks are included. Most of this practical work is done by the students of the course during the contact program.

The important part of the practical work is practice-teaching. The practice-teaching is arranged in the schools in which they normally are assigned. Basically, the teaching of their usual classes is considered part of the practice teaching. More specifically the students are required to plan their lessons, discuss them with their supervisors and observe lessons given by other teachers in their schools. All this has to be done in a formal manner for a minimum number of lessons prescribed by the universities.

The main difficulty regarding practice-teaching lies in its supervision. Also the success of the practice-teaching program depends upon how effectively supervision can be organized. The principals of the schools in which the student-teachers are assigned are the main supervisors on behalf of the Institute. They have a number of meetings with the personnel at the Institute regarding the supervision work. They are also requested to send periodic reports to the Institute about the students under their charge.

In addition, the Institute endeavors to send its own faculty to the schools for supervision work. An attempt is made to ensure that each student is supervised by the Institute staff at least four to five times during this period of practice-teaching.

It has been felt that a very large number of the principals in the schools have discharged their responsibility of supervision in an extremely satisfactory manner.

Most of them have advanced degrees and many of them know the Institute's regular teacher education program very intimately. They, therefore, are well acquainted with the type of work that they are expected to do.

We have found that the success of any Correspondence Course depends on the following four factors:

1. The inclusion of literate students properly motivated, eager to learn with a program conducted in such a manner that their interest is maintained.
2. The provision of high quality material in the form of correspondence lessons prepared by outstanding and experienced experts in their field.
3. The provision of very effective correctional work and proper guidance for the students.
4. The existence of efficient office organization and access to good postal service.

R. N. Mehrotra

FURTHER PROFESSIONAL STUDIES FOR SERVING TEACHERS

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A strong tradition of inservice work has been established over a period of some twenty years, and the School of Education now has one of the most varied and extensive programs of work in this field of any Area Training Organization in this country. The link between initial and inservice work is emphasized by the fact that these are the shared concern of the Division of College and Further Professional Studies of the School of Education. Each year between two hundred and three hundred lecturers take part in the School's inservice program. These include staff of this and other universities, tutors in colleges of education from this and other areas, local authority officials, head and assistant teachers, HMIs, and a considerable number of members of professions other than teaching. At present some 4,500 teachers annually attend courses organized by the Further Professional Studies Unit.

With the increasing inservice provision being made by LEAs, by colleges of education and other bodies, it became desirable some years ago to establish two committees to take an overall view of the opportunities for further professional study in the area as a whole. The first of these, the Advisory Committee for Further Professional Studies, includes representatives of all the interested parties - the teachers themselves, the LEAs, the colleges, HMI, the School of Education, the South West Regional Council for Further Education, and some other organizations. Another body, the Further Professional Studies Committee, reviews the particular contribution that can be made by the School of Education and its associated colleges.

Recent innovations in the Further Professional Studies field include the organization of courses for wardens of teachers' centers, which now take place on a regular basis, and for probationary teachers, associated with the development stage of our research on this topic funded by the Department of Education and Science. During the 1970/71 session under the direction of the Area Research Fellow some 50 local teachers participated in teacher research groups. Following a term's introductory course, the teachers divided into small specialist teams which, with tutorial aid, carried out small scale research projects in their own schools, reporting back their findings to the whole group. Cooperation with HMI in jointly sponsored courses has increased, and close cooperation is also being maintained with the university Department of Extra-Mural Studies. During the past eighteen months the university has collaborated with an independent television company in the writing and presentation of two series of programs for teachers, including discussion and simulation as well as television presentation and involving several thousand teachers organized in viewing groups throughout the area and in South Wales.

William Taylor

PERCEPT: TEACHER PREPARATION FOR OPEN EDUCATION

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The Peabody Early Childhood Education Project (PERCEPT), incorporated into its design, organization and operation participatory preparation for novice teachers learning to promote open education for young children. During the 1969-80 school year PERCEPT assisted fifty-one women college graduates from fields other than education to become qualified, certified teachers of children in the three - through - eight bracket. The program operated on a fifteen week schedule, five days a week, from 8:30 a. m. to 3:30 p. m. each day. The candidates accepted into the program through a screening process from among more than two-hundred fifty applicants made a firm commitment to teach upon completion of professional preparation. With few exceptions PERCEPT students were mothers of school-age children.

The multi-aged group of young children enrolled in the focal class, housed in a large prefabricated extension of the Burke School in Peabody, came from two separate geographical areas in the Massachusetts community. The two groups of children were selected so that they would be complementary in socio-economic background, ethnic variations and languages spoken. In all, fifty three-to-five year olds were enrolled throughout the year, fifteen of whom were non-English speaking upon entrance into the program. Through the open interaction of the children under the guidance of student teachers, teacher-aides, and the professional staff, all of these children became competent in English as a medium of communication, although originally speaking only Spanish, Greek and Portugese.

Student teachers joined the professional staff in planning and implementing the curriculum. All students had first-hand contacts with parents of the children in the process of preparing in-depth case studies. Parents of the middle class neighborhood of Burke School and parents of the "downtown" area mingled in PERCEPT activities with evident common interest in their children's education. One communication bridge was the use of closed-circuit television recordings of value to staff, students and parents in conveying information about the progress of the children in the program.

In addition to the Peabody focal class for three-to-five year olds, Massachusetts Public School Systems in Andover, Burlington, Swampscott, Winchester and two classes in the Burke School in Peabody offered kindergarten and primary school practice teaching stations to PERCEPT students for the alternate training period, following five weeks of teaching the younger children.

PERCEPT student teachers were accepted as members of the school staff from the beginning of their preparation for teaching. This approach consisted in recognizing common responsibility for the progress of each child and the related necessity for sharing information about the growth of each pupil. The help of specialists as needed, visits to a variety of early childhood education exemplars, and discussion of professional references provided support for the successful participation of the neophyte teacher in open education processes.

The evaluation component of PERCEPT was activated on three levels: constant staff evaluation of procedures in relation to the progress of student teachers and individual children; student self-evaluation as an integral part of the basic thrust of the project; and "outside evaluation" by a professional team who visited the program in operation and prepared an extensive questionnaire for the purpose of looking at the program through the eyes of the student-teacher participants.

PERCEPT promoted certain elements as equally essential in the education of the young child and the preparation of the teacher in early childhood education. Children and adults alike developed in observable ways in response to constant implicit and explicit emphasis upon these strongly valued elements:

Respect for the integrity of the individual
Self-initiated learning
Trust in other persons in the group

The total process stressed exploration, inquiry, discovery, manipulating materials to solve problems, using the arts, science, and social studes as well-springs of knowledge and using language as a social process, parents as teachers, children as teachers, teachers as friends.

RETRAINING THE TEACHERS OF TEACHERS OF DISADVANTAGED YOUTH

The School of Education, The Portland State University
Portland, Oregon, U. S. A.

Young people have been trying to say to any adult who would listen that too much of what happens in today's schools doesn't fit into the mainstream of their lives, but to little avail. The teachers who care enough to heed want to change their teaching but don't know what, how or why. Panaceas of many sorts are available for the asking but most treat symptoms rather than causes, with the result that what starts as a promising innovation ends up "producing about as much growth as the procedures they supplant and nothing more." Teachers are bewildered, their leaders are stymied and youths' frustrations continue to mount. This spinning of wheels, this tragic waste of talent, is true for students in inner-city schools, for college students who want to learn to teach in those schools, and for the professors who want to learn to teach differently in university classes in teacher education. In other words, almost everyone who is a student expects more from his teachers than he is getting, and neither knows what to do to improve the situation.

This program for "retraining the teachers of teachers of disadvantaged youth" attacks this problem by focussing on the process of instruction. Funded under the TTT (Trainers of Teacher Trainers) Program of the federal government, the premise of Portland State's project is that teachers learn to teach through a process of inquiry. The teacher inquires continually into the individuality of every one of his pupils, trying to know him better as a unique human being so that he can communicate with him, can help him establish purposes and goals for his learning, can help select and interpret content that will further those goals, and can guide him in applying what he learns to improving his own life. The teacher learns to probe into the structure of his discipline in general and of every content topic in particular so that he can better make it meaningful to his pupils and can help them relate it to what they see as being significant to them in their lives. The teacher learns to ask his colleagues from other disciplines to help and guide him in analyzing his instruction in order to discover alternatives that might have improved students' learning and, in turn, to help and guide them in the same process. Emphasis in this inventorying is not on effective, correct or good teaching; rather, emphasis is upon relations between the behavior of the teacher and the behavior of the student, between the student's behavior and the underlying causes of that behavior, between the structure of the content in which objectives are embedded and the processes of learning and teaching. Every teacher continues to learn as he inquires into what appears to be happening in his and his peers' instruction, as much if not more from the analysis as from the actual teaching itself.

Program Activity

Liberal Arts and Education professors, experienced teachers in inner-city elementary and secondary schools, and undergraduate students preparing to teach are involved as follows:

a. Teams of about ten academic and education professors leave the campus sanctuary to refresh themselves on what the real world is like. For about three months they become involved in several community agencies in non-expert roles, e.g., counseling dropouts in a federally sponsored residential manpower center, helping parole officers work with juvenile delinquents.

   With the tutelage of an experienced community agent they meet regularly in seminars to inquire into each other's experiences and draw inferences about the significance for educational programs in the university.

b. The professors then spend about six weeks acting as assistant teachers in inner city elementary classrooms followed by a like period in secondary schools. An accompanying seminar led by a member of the TTT staff helps them probe for significant relationships in these experiences.

c. A carefully selected group of beginning juniors in elementary and secondary teacher education go out for one term into the same community agencies in which their professors worked, and they meet in seminar in the same manner; often, their professors come in for discussions on something which has been discovered by both students and professors.

d. These students spend the three subsequent terms in classrooms, beginning as assistant teachers and progressing to a point where they can take over full responsibility for the instruction in the level and subject matter for which everyone agrees they are best qualified. The professors teach accompanying seminars in which they study academic content being taught in the elementary or secondary classroom and the theory of learning and teaching underlying what they discover to be happening therein.

e. The so-called "master teacher," in whose classroom the undergraduate pre-professional teacher will have been teaching, leaves in the final term to study some area of concern under the "trainee professors" while the pre-professional student assumes full charge for planning, teaching and evaluating of the instruction in that room during the half-day his "master teacher" is away.

f. Everyone teaching in the TTT program participates in this peer analysis through a procedure entitled the "Learning Inventory." Academic and education professors who have "graduated" from the program and are now teaching their colleagues periodically observe and critique each other's instruction in non-TTT campus classes, with "Trainee professors" and undergraduate students participating. The TTT students form into interdisciplinary teams -- e.g. 2nd, 4th and 7th grade teachers in an elementary school; English, Mathematics and Business in a secondary -- for pre-planning, observing, and critiquing of instruction as recorded on video tape. Every trainee professor participates in some of these inventories and has these students do the same for him on his instruction.

David E. Willis

INSERVICE FACULTY DEVELOPMENT: A COMMITMENT TO RELEVANCE

Appalachian State University
Boone, North Carolina, U. S. A.

Today, from increasing necessity, the peoples of the world are turning their attention and support to the restoration and protection of the earth's natural resources. Man has finally realized that no longer can he pollute his environment and continue to survive in it. Similarly, many leaders in education have a new awareness of the need to protect and improve an even greater, human resource--the quality of learning of the young people in public schools and colleges. Never before have American educational institutions been so polluted by student and faculty apathy, curricular irrelevance, public distrust, and general frustration.

At Appalachian State University, an 8,000 student, state university located in Boone, North Carolina, several programs have been initiated to counter these conditions. One program, funded by the U. S. Office of Education and known as a TTT (Trainers of Teacher Trainers) project is based on the rationale that there is little reason to clear up education downstream if the headwater is stagnant or otherwise polluted.

The Project's primary objective, therefore, is the improvement of the teaching-learning process at the source of the educational stream -- the graduate professor. The TTT philosophy recognizes that in the flow of this stream it is the graduate professor who prepares the undergraduate college professors and public school administrators who teach and supervise the public school teachers who, in turn, teach the nation's youth. The TTT project seeks to purify the entire education stream by purifying the source through retraining programs which up-date and improve the performance of graduate professors and graduate programs.

Initiated in 1970, the Appalachian State University TTT Project was one of more than forty TTT Projects throughout the United States funded by grants from the U. S. Office of Education's Bureau of Educational Personnel Development (BEPD). The first year of program operation at ASU concentrated on bringing together graduate faculty members and public school personnel related to instruction in mathematics and science, subjects chosen because they were viewed as among the worst taught in the Appalachian region. To assist the participating eight graduate faculty members (all with Ph. D. 's) to better understand the problems of teaching mathematics and science in the public schools, eleven outstanding public school teachers of these subjects were recruited for an academic year of program participation.

Possessing master's degrees, these participants were paid stipends which permitted them to participate in the program full time. Simultaneously many earned six-year certificates during the process.

The thrust of the program was the discovery and use of new ways to individualize instruction in mathematics and science for economically disadvantaged students of the Appalachian Mountain region. Working through a parity board composed of representatives of the university's Colleges of Education and Arts and Sciences, the public schools, and community representatives, the project participants formed instructional teams with administrators and teachers in remote rural schools in the county and in township schools in Boone and Lenoir. All participants dropped titles such as "Dr. ", "Miss", or "Mr. ". All faculty relationships were on a first-name basis and in accordance with voluntary, cooperative, team concepts. The barriers long existent between public school and university faculties were broken down. The remoteness of the college professor from the public school classroom was removed. Attitudes of freedom, openness and trust existed in the classrooms and children began to learn with genuine interest and at their own individual rates. Peer teaching by children became common place and productive. Learning pre-empted teaching as faculty members themselves became learners. Parents, students, administrators and teachers were enthusiastic about the outcomes. Simultaneous with their activities in the schools, graduate faculty members were being joined on the university campus by public school faculty members to participate in courses and seminars in learning theories, mathematics, psychology, and science.

For the 1971-72 school year, it was decided to expand the program's benefits to graduate faculty members in other departments, viz., history, sociology and anthropology, higher education, industrial education, art, English, geography, and philosophy and religion. One Ph. D. from each of these departments joined with continuing participants in mathematics, biology, and psychology. Joining the ASU faculty members were black graduate professors from two near-by predominantly black universities and three outstanding public school administrators. During the spring of 1971, drawing on experience acquired in the 1970-71 program, the ASU participants wrote a re-training program for 1971-72. This program, currently in operation, includes practicum experiences in the public schools and junior colleges of the region, seminars in theories of learning and means to personalize learning, inter-disciplinary seminars in which participants learn to better relate their specialties to the whole of experience, individualized study of the participant's subject area and experiences in group interaction. All participants have been relieved of their usual job-related responsibilities and devote full-time to the program, one-fourth of their salaries being paid by the university and three-fourths by federal grant.

Travel funds and avilability of consultant fees have been vital to program success. Participants have been enabled to travel to see first-hand new and successful methods of individualizing instruction elsewhere. They have spent several days in black ghettos of the inner-city and in the coves of rural Appalachia. They have brought in outstanding consultants in their disciplines and experts on the problems of blacks and other minority groups. They have traveled many miles and spent many hours in the schools of the region. Already courses which they teach in the university are being revised. Each participant is involved in a follow-up project designed to effect needed change in himself and/or his department upon termination of the year's program.

The program has encountered a number of difficulties. For example, initially some graduate faculty members saw it as a threat. This fear was alleviated by inviting them to participate in the planning of the training program. Even so it has been difficult to get all graduate faculty members effectively involved in all program elements. One or two, half-way through the year have not yet established close ties to one or more cooperating public schools. They visit, observe, and discuss, but find it is difficult to easily relate to teaching children on a continous although short-term basis. Trained as researchers, some Ph. D. 's in the liberal arts are slow to relate to the world of public education for which, heretofore, they have had no training nor experience. But even so, much good has been achieved. Their suspicions of "educationists" have subsided and they have learned the problems of education in the public schools. Most have come to accept a heretofore unacceptable fact: They, members of faculties in the arts and sciences, are teacher educators. No longer do they blame entirely the public school teacher for inadequate subject matter knowledge evidenced by entering university freshmen. Now they feel a shared responsibility. They have come to appreciate some of the problems faced by the public school teacher and often, where they have worked in schools with their own graduates, they have been confronted with the fact that they themselves are at least partially responsible for the adequacy or inadequacy of the classroom teacher's preparation. Now they are in position to see the teacher education wheel turn full cycle -- what they have produced in teacher graduates can be recognized in the graduate's products. Self-examination and a re-ordering of professional priorities often results.

The program has opened new dialogues and frank, trustful communications between educationists, liberal artists, public school personnel, and community leaders. During 1972-73 graduate faculty members from ten heretofore uninvolved departments will enter the program. A new feature of the 1972-73 program will be seminars and colloquia built around the theme of educating teachers for the year 2000 when the American society will crowd ninety percent of its 300 million persons on to only one percent of its land. At the conclusion of the project in 1973 Appalachian State will have retrained top graduate professors in twenty departments. It is hoped that their reactions to the program will be similar to those of present participants. As a professor of Philosophy and Religion stated:

> "Visting in the schools has made me aware of both problems and possibilities in the humanities which I didn't even know existed. Even more fundamentally helpful is the fact that the released time has given me opportunity for intensive exposure to the ideas and styles of my colleagues. The confrontation is a sensitizing experience forcing radical re-evaluation of my own habits and preconceptions about teaching."

A profesor of Biology was echoed by several colleagues when he said, "This year's TTT program has been the most influential and valuable experience of my life. It has been far more valuable to me than was my Ph. D. program."

Appalachian State University has dedicated itself to reform of American Education. Teachers in the TTT program include the University President, the Dean of Research, the Dean of the Graduate School, and the Dean of the College of Arts and Sciences. It is significant that the program is directed from the President's office. Every effort is being made to purify the education stream at its head. The results should prove beneficial throughout the university's course of influence.

Joseph C. Logan

FIELD CENTERED TEACHER EDUCATION

FIELD CENTERED TEACHER EDUCATION

In recent years there has been considerable agreement about the dysfunctionality of student teaching as a one-shot, terminal experience for pre-service teachers. Such experiences have traditionally come during the last half of the final year in the training program and occurred in regular elementary or secondary schools under the tutelage of practicing teachers. The practicing teacher seldom received any preparation for this supervisory-tutorial role and almost never understood the kind of relationships necessary with either the student teacher or the university supervisor to promote the competency of the pre-service teacher.

In recent years there has been much discussion of the need for collaboration of elementary and secondary schools with colleges of teacher education. These discussions have led to a limited number of institutions seeking to modify their preparation programs. Such innovative programs embody a carefully designed sequence of direct experiences beginning with observation and even paid service as a para-professional and culminating in an internship or other full-time responsibility for the pre-service teacher in the school. These kinds of innovation are predicated upon close relationships with schools but relationships that encompass some degree of equity with regard to responsibility and conduct.

The following case studies indicate how (1) common or public schools are assuming greater responsibility for the laboratory aspects of teacher education, (2) public school practitioners are being aided in becoming recognized and qualified teacher educators in the public schools, (3) university academicians, teacher educators and public school teachers can combine their expertise to provide a more optimum learning environment than is often provided within the training college situation, (4) greater relevance to real learning situations can be introduced throughout a teacher education program, (5) the traditional gap between a shielded student teaching responsibility and a fully responsible practitioner position can be overcome, and (6) how real school needs and problems can be fed back into institutions to influence and change the theoretical dimensions of their programs.

FIELD BASED METHODS COURSES IN TEACHER EDUCATION

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One of the major problems confronting teacher education today is the presentation of methods courses in such a manner that not only will the students be able to relate theory to meaningful situations, but will be able to initiate worthwhile procedures of their own. Often methods courses have been accused by undergraduate students, and faculty too, as not relevent to real situations, containing nothing but meaningless theory, having little content, being extremely boring, and taught by professors who are far removed from real school situations. Towson State College has developed, for teaching methods courses, a program based on the philosophy that prospective teachers cannot be taught to develop methods unless their teachers practice similar methods and also develop an environment that is based on what is known about the learning process. This means that a nonauthoritarian atmosphere is developed where learner initiative and creativity may encourage originality, self-confidence and self-reliance.

During the last fifteen years at Towson State College there has gradually evolved, on the undergraduate level, an extensive off-campus methods course program that began with one instructor and fifteen students in one school and presently involves sixteen instructors and more than two hundred students in seventeen different schools each semester.

A new pattern has developed in teaching methods courses. Rather than the conventional arrangement of a methods section working on group goals with an instructor, individuals, each with his own goals and needs, work toward generally accepted outcomes, but by specifically prescribed assignments, projects and experiences. This new off-campus program means a new relationship and organization for the student teachers and coordinator (clinical professor).

The most extensive use of off-campus methods courses at present occurs in the Elementary Education Program at Towson State. Here, all the students in the Curriculum II course have their methods taught off-campus. This course includes emphasis in the teaching of language arts, reading and social studies. This program includes two options for students:

Option I

Groups of up to twelve preservice teacher trainees are assigned to eight individual schools known as "methods centers", for a full semester of methods and student teaching. Each group or section is under the supervision of one college instructor. This college faculty member has no other course responsibilities during the semester and is assigned to the school fulltime to teach the methods, supervise the student teaching, and provide inservice experiences for the school staff.

Option II

On this second option, teacher trainees are assigned to a "methods center" for a part of their field based experiences. The balance of their student teaching assignment takes place in a regular public school.

Included in both options are regular classes, seminars which are held with the college students, and instruction in methodology. For the most part, however, the instruction is individualized and the college coordinator works on a one-to-one basis with each student in his own school. The curricular teaching assignments for the student teachers are determined cooperatively by the supervising teacher, the other members of the team, the college coordinator and the students. After the assignments have been made, the college coordinator works individually with the student teacher on the methods needed to complete the assignment responsibilities.

In many instances the assignments require the planning and implementation of a "learning station" to develop specific skills in reading, language arts, social studies (or other areas of the curriculum). For example:

> Recently one of the student teachers developed for a first grade team a four-step reading skill station, utilizing a variety of instructional media including a puzzle, a game, a record, a tape, a filmstrip, and original art work.
>
> Another student teacher built a pavilion named 'Author's Hideaway' housing a creative writing assignment. This included a typewriter, pictures, writing materials, tape recorder, and dictionary.

As the coordinator and student teachers plan together, many specific methods are discussed and, with an emphasis on the learners, their effectiveness evaluated. After this cooperative introduction to methods, the students gradually assume independence in developing their own methods, requesting assistance from the coordinator whenever help is needed.

The methods developed are based on the individual needs of the student and the classroom in which he is working. Specific classroom assignments are made cooperatively by the student, the college coordinator, the principal and the teaching staff and include a variety of situations for each student during the semester. Each student is exposed to a wide variety of teaching styles and has the opportunity to develop methods for a wide range of children. Each student teacher has one intensive experience of at least eight weeks with one teacher and then has a number of extensive experiences at other grade levels. In most schools one half to three fourths of the teachers are involved in the teacher education program thus insuring the opportunity for the students to perceive divergent methodologies.

A wide variety of different types of schools participate in the off-campus methods program including: an all-black city school; an open-space, integrated, inner-city school; a typical integrated inner-city school; two open-space schools in model planned communities in different counties; a school in a rural, suburban setting; and one in a newer suburban community. The geographic distribution of the schools is usually determined by the student population although an effort is made to encourage students to accept assignments in the inner-city or low income areas of the counties. Also there is an attempt to locate schools that have developed innovative, individualized programs.

In all "methods centers" there is an emphasis on the individual development of methods resulting from a one-to-one relationship between the instructor and the student. Although there are seminars and regular classes, methods are developed for the most part during individual conferences between the student and his instructor and arise from an actual classroom need. The implementation of the method is instantaneous and the evaluation follows immediately. As a result necessary changes may be made with little loss of time.

Evaluation

In a recent survey, Towson students who had both on-campus and off-campus methods courses were requested to make some comparisons of their merits It was found that seventy-three percent of the students favored the off-campus course. Several others indicated that they preferred off-campus courses if some particular modifications were made. In the write-in responses a few students indicated that they preferred combinations of on-campus and off-campus courses. Others had no opinion and a few asserted again their preference for no methods courses at all. Considered in any light there is heavy support for the off-campus methods courses.

The Towson effort at the professional preparation of teachers is a reality based program and requires only the support of enthusiastic college people working closely with public schools in program building.

Walter W. Williamson
Chandler Barbour

SCHOOL COMPLEXES

Vidya Bhawan Teachers College
Udaipur, Rajasthan, India

In order to raise the standards of education, a number of reforms have been suggested for India. One such recommendation is the School Complex, an innovation highly recommended by the Indian Education Commission. The main objective of the "School Complex" is to secure better coordination between different stages of education and to break the isolation in which educational institutions generally function. From this point of view, the Commission has suggested a two-way approach:

(a) Universities and colleges should assist secondary schools in improving their efficiency through a variety of measures; and

(b) School complexes should be formed. Each complex should consist of a secondary school and all the lower and higher primary schools within its neighborhood. All the schools in such a complex should form a cooperative group working for improvement.

This valuable recommendation of the commission has been accepted by every state in the country, and "school complexes" at the secondary and elementary school levels have been organized during the last five years.

The suggestion drew the attention of some of the teacher educators of Udaipur. A meeting of all the local teacher educators was called in February, 1971 at the Vidya Bhawan Teachers College for considering the possibility of organizing a Teacher Education Complex for Udaipur. The idea was accepted, and a working committee was appointed for preparing the details of the scheme. The Committee prepared the draft Constitution of the Complex. It was accepted with a few modifications, and the Udaipur Teacher Education Complex was formally established on February 22, 1971.

Udaipur has seven teacher training institutions, viz., (1) Vidya Bhawan G.S. Teachers College (V.B.T.C.), (2) Lokmanya Tilak Teachers College (L.M.T.T.C.), (3) Elementary Teachers School (E.T.S.), (4) Elementary Science Teachers School (E.Sc.S.), (5) State Institute of Education (S.I.E), (6) State Institute of Science Education (S.I.S.E.), and (7) State Evaluation Unit (S.E.U.).

Each institution has a specific program of its own. For example, Vidya Bhawan Teachers College is a graduate school of education with a research staff of high calibre, an excellent library, a psychology and guidance laboratory, an audio-visual unit, and an In-service Education Department for Secondary Teachers. L.M.T.T.C. has a rural bias and trains secondary teachers. While E.T.S. trains lady teachers for the elementary level, E.Sc.S. prepares science teachers for the same stage.

The last three institutions are government institutions and work at the state level. The S.I.E. is the academic wing of the State Department of Education and its main objective is to bring about a qualitative improvement in school viz., research, training, extension and publication. The S.I.Sc. pays attention to the improvement of science education, both at the elementary and secondary levels, as well as the in-service education of science teachers. The Institute has excellent Science Laboratories, and a Science Community Center for demonstrating such science experiments as may prove useful to school children and the community. The S.E.U. pays attention to the improvement of evaluation procedures at the school level.

Although the institutions of Udaipur have good potentialities, they are not likely to face new challenges successfully, if left to their own resources.

The main objectives as well as functions of the Complex are given below:

I. Objectives

The broad objectives of the Complex are the following:

(1) to pool all available resources in men and material for their maximum utilization for the improvement of teacher education institutions;

(2) to provide an organ to the teacher educators for their professional growth;

(3) to coordinate activities of the education institutions of different levels for pre-service and in-service programs;

(4) to support experimentation and research in education in general and teacher education in particular; and

(5) to improve the standard of teacher education vis-a-vis school education.

II. Functions

1. PreService level

(1) To make available the material, e.g., library books, journals, labs, equipment, teaching aids, etc. to student teachers and teacher educators;

(2) to provide for exchange of Specialists for lectures and supervision program of institutions;

(3) to arrange extension lecturers of visiting educationists for teacher-educators and student teachers; and

(4) to organize discussions for student teachers and teacher educators.

2. InService Education

(1) To prepare a coordinated annual program of inservice education;

(2) to mobilize the resources of all the institutions for inservice education of teachers in schools; and

(3) to arrange extension lectures, paper reading, science fairs, exhibition of audio-visual material, strengthening of subject clubs, professional organization and similar other activities for the schools.

3. Research

(1) To publish research reports which are of use for classroom teaching; and

(2) to undertake cooperative research projects.

4. Professional Growth

(1) To strengthen professional growth of the teacher educators at local level through paper reading on current educational issues, reading of the research reports, etc; and

(2) to encourage subject clubs of teacher educators.

5. Publications

(1) To prepare and publish a consolidated list of material, e.g., audio-visual material, etc. which can be made available for the institutions of the Complex;

(2) to prepare and publish the consolidated plans of the activities of the Forum; and

(3) to publish research papers.

The Executive Committee of the Complex is trying its best to put the scheme into operation. Every institution is drawing from the rich resources of a sister member of the complex. For example, the library, psychology laboratory, and the audio-visual unit of Vidya Bhawan G.S. Teachers College have more visitors. The faculty members of the S.I.E. are proving useful as resource persons for educational administration, the students of V.B.T.C. and L.M.T.T.C. are using the science laboratories of the S.I.Sc.; the Science Community Center is attracting students of the school laboratories; the advice of the research staff of V.B.T.C. is sought by different institutions for research projects; there are inter-related programs of in-service education of teachers and teacher educators; the field-work of graduate students of V.B.T.C. is being arranged in E.T.S. and E.Sc.S., etc.

It is too early to evaluate the activities of the Complex which is not yet a year old. The teething trouble has already started. The Complex requires proper nourishment, if it has to attain its full stature. The coordination and integration of the activities of different institutions is not an easy task. At the same time, the initial zeal of the members has to be maintained. All this requires wise leadership and a healthy partnership among the sister institutions.

S.N. Mukerji

A MODEL FOR AN ELEMENTARY LEVEL TEACHER EDUCATION CENTER

School of Education, Youngstown State University
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Considerable concern has been expressed in the United States over the fragmented nature of the typical teacher education program as manifested in the artifical separation of theory, as taught in the professional schools of education, and actual application in elementary and secondary schools. Other pressing concerns are the absence of school personnel in many of the substantive aspects of the teacher education program, and the hiatus existing between university professors of education and teachers in the schools concerning teacher education.

The Sheridan Project, a joint project of Youngstown State University and the Youngstown City Public School System, is an attempt to evolve a model for teacher education centers. Briefly, from its inception this project has included:

1. Joint planning by university faculty and the faculty of the Sheridan Elementary School in Youngstown, Ohio,
2. The integration of theory, method, and clinical practice with methods classes taught in a performance objectives mode on site, and
3. Students involved for 25-30 hours per week in the school setting.

The Sheridan Elementary School might be described as a typical lower-middle to middle class city elementary school. The student population of the school is widely representative of all ethnic groups and the teaching staff likewise comes from a variety of backgrounds. This particular school was selected because of a long history of innovation and an interest in individualized, performance-based curriculum.

The curriculum of the School of Education at Youngstown State University must be described as traditional in nature, although, as a direct result of the Sheridan Project and our involvement as one of four Universities in the State of Ohio implementing multi-unit elementary schools and Individually Guided Education programs, the curriculum in elementary education is now moving toward a performance-based approach to teacher education. Indeed, performance objectives in each of the five areas comprising the curriculum for the thirty participating elementary education students were specified.

Youngstown State University (Y.S.U.) is an institution of higher education with a total enrollment of 14,960 students located in the urban center of downtown Youngstown, Ohio. Geographic location and the admitted need for a more meaningful experience in the pre-service education of potential school teachers led to a re-examination in 1970 of the elementary education curriculum of the School of Education at Youngstown State University. It was within this milieu that the School of Education at Youngstown State University, piloted an integrated school-based teacher education program, cooperatively planned by the Department of Elementary Education and the Sheridan Elementary School of the Youngstown City District.

This pilot program in elementary teacher-training took place on a purely voluntary basis and was highly innovative compared to past methods of teacher education at Y.S.U. Implementation of a School-University peer relationship originated in October, 1970, when a Sheridan Project Steering Committee consisting of six Youngstown State University Faculty members and six Sheridan School faculty members initiated intensive planning sessions under the co-direction of the Sheridan principal and the Chairman of the Elementary Education Department at Youngstown State University. Thirteen planning sessions were held at Sheridan School during the period from October, 1970, through late March, 1971, prior to program implementation.

Typical questions raised during the planning stages of the program included:

1. What experiences do university students need as a part of their professional preparation?

2. How many university students can be effectively supervised in the school and how?

3. What professional education courses and in what sequence are best suited to this type of program?

4. How much time should university students and university faculty spend at Sheridan School?

5. How should the assignment of university students to the various classrooms be handled?

6. How can conference time best be arranged for all concerned?

7. How will university students be selected to participate in the project?

During the planning phase faculty with cooperating elementary school responded in writing to such questions as:

1. What should the prospective elementary teacher know about elementary school: a. mathematics, b. science, c. language arts, d. reading, and e. organization and systems in order to help children learn: i. mathematics, ii. science, iii. language arts, and iv. reading.

2. What should the prospective elementary teacher be able to do to help children learn elementary school mathematics, science, language arts, and reading.

3. What should the prospective elementary teacher know about the growth and development of boys and girls so that planning for pupils and reactions to pupils would enhance growth and development?

University faculty members utilized the responses of the elementary school faculty as guidelines in writing behavioral specifications to be accomplished by university students.

Each curriculum content specification included:

a. an identification number

b. a description of the university student's terminal behavior

c. alternate activities through which the student could achieve the terminal behavior, and

d. descriptions of acceptable performance in terms of instructional activities, outside readings and the utilization of audio visual aids.

Thirty university students were selected by a random process from among the applicants for participation in the project. Announced eligibility requirements for applicants included a 2.5 minimum accumulative grade point average in all college work taken and beginning junior level status. Subsequently, twenty-eight of the thirty students registered for and completed the project. University faculty members consisted of one member of each area of curriculum content specialization. The thirty students enrolled in the program earned fifteen quarter hours of University credit in any of the following specializations:

a. Teaching of Arithmetic

b. Teaching of Science

c. Teaching of Reading

d. Teaching of Language Arts, and

e. elementary professional laboratory observation

The elementary school faculty along with the principal served as advisor-teachers to these students on a collegial base with the university faculty. Pupils at the school interacted with the university students, one-to-one and in small groups. University students, school faculty and university professors followed a team approach to teacher-training and education.

University students were required to spend a minimum of 25 hours per week at Sheridan School. Five university faculty members each conducted two seminar sessions at Sheridan School each week. University students were assigned an advisor-teacher with the elementary school faculty but were free to move easily from room to room to complete specifications. A Change of Specifications Form was also provided so that all groups participating in the Project could revise particular specifications as they perceived a potential improvement in the existing specification.

The school library was available to university students supplemented by university methods text books, reference materials from the Y.S.U. Curriculum Materials Center, and appropriate Sheridan School materials. A room was also provided for seminar sessions, and other formal (scheduled) and informal (ad hoc) group discussions among students, professors, and Sheridan School faculty.

The university students worked at all grade levels from kindergarten through seventh grade. Occasionally they worked with one pupil, sometimes with several pupils and infrequently with a whole class. The students taught both in regular classrooms and in other areas of the building.

Evaluation

Initial evaluation was made in terms of the impact of the project on public school pupils, school faculty, university faculty and benefit to the college students. Members indicated that sufficient numbers of both faculties were involved in the planning process, but that the inclusion of students also would have been helpful. The committee did not believe that outside members, such as school officials, would be helpful during the initial stages of planning. Sufficient time was allotted for planning but at times unilateral concerns took precedence over cooperative planning. That is, teachers and professors needed more time to plan in their respective subgroups before meeting together.

Pupils in grades four through seven responded to a six (6) item questionnaire. A resounding approval of this pilot program in teacher-education was awarded to the Sheridan Project by 103 pupils. A few samples follow:

"You could learn fast and it is fun,"

"You were going out (of the classroom) and learned stuff I never learned before,"

"I liked the Y.S.U. people because they helped me out very much with my work,"

"I liked getting more help in studies I didn't understand,"

"Well, my opinion is I think it was very, very nice for them to come and for them to take time to help us with projects. The things I liked about it was that they didn't mind helping us and they even volunteered."

When asked what they "didn't like" about the project common responses included:

"They (YSU) were not always available," and

"The regular teachers didn't give us enough time with the Y.S.U. people."

The Sheridan faculty responded to a 17 item questionnaire as did the Youngstown State University faculty and the participating students. The Sheridan School faculty did not believe that the project unduly taxed their time or energy. They expressed the belief that the program should be continued but agreed on the following revisions:

1. A means for a continuous exchange of ideas between the school faculty and the Youngstown State University faculty must be strengthened.

2. The evaluation of university student performance should be improved, perhaps by changing the traditional grading system for innovative projects. Traditional grades were given for each of the courses taken at Sheridan School.

3. The university students should be assigned one teacher in one classroom for a definite period of time to permit more meaningful and in-depth experiences with school pupils.

4. Fewer university students at one time would make the program more effective. For example, the number should have been reduced to twenty.

5. In most cases specifications were well prepared but many were too detailed and in some cases too technical.

6. The project provided remedial, corrective and enrichment opportunities for the Sheridan pupils that would not otherwise be possible in the traditional school setting.

7. The in-school experience, along with team-teaching in the theory courses, provided a vastly improved learning experience for the university students.

University faculty considered the administrative organization for carrying out the project to be adequate. Although the seminar room provided for discussion purposes and interactions with school faculty and university students was judged satisfactory, professors believe more highly structured theory seminars would be appropriate. A more thorough orientation should have been present in the seminars because students did not understand the relationships among seminars, observation, and the specifications. University faculty also stressed the need for adequate lead time in planning such a project and the need to be more intensively involved at the site. They too felt that the project was an improvement over the traditional on-campus study of elementary school teaching methods.

The 17-item evaluation questionnaire which called for written comments about the Sheridan project from the university students who participated revealed the following responses:

1. Some revisions of the specifications in each curricular content area is needed. The specifications were comprehensive, but in some cases too detailed for adequate completion, and some were not understood.

2. An intensive orientation session is needed prior to implementation of this kind of project with university students. This should include liberal amounts of theory as it will apply to actual classroom observation and practice, as well as orientation to the daily operation of the participating elementary school.

3. The seminars were good but could have been improved by a more intensive focus on theory and research.

4. A continuation of student choice in how he meets various specifications and seminar requirements is desirable and should be continued.

5. The Sheridan Project experience was extremely valuable in that it:

a. Allowed the students a "hands-on" experience in the actual classroom setting.

b. Allowed the students to assimilate liberal amounts of theory and practice as they became oriented to the actual classroom teaching situation.

c. Provided a more realistic basis for considering a career in education.

d. Provided an opportunity for informal interaction with teachers on a peer basis.

CONCLUSIONS AND RECOMMENDATIONS

Based on the information provided from the formal and informal evaluation of the Sheridan Project by participant groups, the following conclusions and recommendations may provide transfer to other school-based professional teacher education projects.

1. All groups, especially the university students, agreed that the Sheridan Project provided outstanding and invaluable experience in professional teacher education which would have otherwise been impossible in the traditional on-campus methods classes and in pre-student teaching laboratory observation.

2. The planning sessions held prior to the implementation of the Sheridan Project were adequate and dealt with anticipated problems in a reasonable satisfactory and comprehensive way.

3. There appears to be a need for strong and meaningful orientation to this type of program, with a meeting of all involved faculty members and all participating university students prior to project implementation.

4. The pupils of Sheridan School indicated that they were helped in subjects in which they needed assistance. They expressed strong affection and respect for all of the participating university students.

5. Not more than one university student should be assigned to one teacher or teaching team for one week or more on a continuous basis.

6. Revision of curricular content specifications is needed in some instances. The continuation of the freedom to self-select activities to achieve desired terminal behaviors prescribed in the specifications should be assured. However, closer alignment of specification objectives to real and actual classroom learning is needed.

7. Seminar sessions need to be refined to integrate a wide variety of activities (e.g., observations, specifications, and prior orientation).

8. The procedure utilized to evaluate university student performance should be explained and presented in writing during a meeting of school and university faculties and participating university students prior to the project.

9. As originally conceived and conducted, the model was an improvement over a traditional program of professional teacher education. However, to operate optimally the above stated refinements should be incorporated with emphasis, particularly, on orientation of students, intensive focus on theory early in the quarter, assignment of students to teachers or teaching units, and differentially equated loads for participating faculty.

BUDGET

No special funds were available for the project. Thus all costs (faculty time, materials, equipment) were absorbed by the Youngstown State University School of Education and the Sheridan faculty. The Youngstown City Board of Education did remodel classrooms at the Sheridan Building in preparation for the implementation of a program of Individually Guided Education in a Multi-unit School. Removing selected walls to provide multi-purpose classrooms accommodates various modes of elementary educational delivery systems (i.e., independent study, small group and large group instruction). Such remodeling coincidently made it easier for this Project to accomplish some of its goals.

Remodeling of an entire elementary building is not a necessary pre-requisite to the implementation of a teacher education center. However, adequate space should be provided in the local school for seminar sessions, and for the gathering and development of necessary reference, curriculum, and project support materials.

To implement the model on a broad scale will require additional financial resources of approximately $1,000 per school for materials, a 25 percent reduction in load for university faculty, and an equated one-fifth released time for participating school faculty.

THE AREA TRAINING ORGANIZATION

University of Bristol
Bristol, United Kingdom

The structure of the Area Training Organization has undergone major modifications in the course of the past few years. Bristol was one of the first universities to establish an Area Training Organization, initially associating eight colleges of education and two art training departments with the University Institute of Education in Berkeley Square. Cooperation with the Department of Education, mainly responsible for the preparation of graduate teachers, was close at all times, and 1966 both Department and Institute moved into the new Helen Wodehouse Building, named after the University's first Professor of Education. Discussions for the establishment of a Faculty and School of Education began almost immediately, and proposals were approved by Senate and Council and by the Department of Education and Science in 1969.

The Board of the Faculty of Education includes a substantial number of College of Education members, together with teachers and officers of the local education authorities. But University staff, a number of them from departments other than Education, are in a majority, and thus the powers of the Faculty Board in respect of examination and curricula for the Certificate in Education are permanently delegated to the Board for Professional Studies which, as the body fully representative of all the teacher education and employment interests in the area, constitutes the governing body of the ATO.

Recently, steps have been taken to increase the number of serving teachers on Boards and Committees of the ATO. The number of teachers on the Board for Professional Studies has increased from five to ten; two teachers have been added to the membership of the Professional Committee, which controls examinations and sylabuses for the Certificate, and a second teacher to that of the Certificate Admissions Committee. Two serving teachers will now be taking part in the work of each of fifteen Subject Panels except that in Education, where five serving teachers have been added to the membership, and the new Professional Area Subject Panel, which has four teacher members. The Advisory Committee for Further Professional Studies, which helps to coordinate provision for serving teachers in the area, has always included nine teachers. Serving teachers have been members of each of the working parties concerned with the review of the Certificate course, and of the Certificate Planning Committee. In all, at least fifty teachers are actively involved in the work of ATO committees.

Attention has also been given to enhancing student participation. A student's working party and conference has been established which meets each term and discusses ATO (as distinct from internal college) matters which students see as relevant to their interests. Students have taken an active part in the Certificate review working parties, in the work of the Planning Committee, and in the Professional Committee discussions on Planning Committee reports.

The Review of the Certificate Course

The major focus of the ATO review has been upon the structure of the three-year Certificate course, which in this area is being followed by some five thousand students. The Professional Committee (responsible to the Board for Professional studies for the approval of curricula and examinations for the Certificate) in November 1969 established eight working parties to consider a number of aspects of existing Certificate work, and these reported to a residential conference in April 1970, attended by some two hundred college and university staff and by a small number of national and local educational officials, teachers and students. The conference considered the reports of the working parties and recommended the establishment of four new working groups, concerned respectively with the aims and objectives of the course, professional studies, educational studies and main subjects, and a Planning Committee to concert proposals for the design of a new course. In addition to college representatives each of the working parties included four teachers and two students, and two teachers and two students together with HMI and LEA representatives have taken part in the work of the Planning Committee. The final outcome of all these discussions is the new structure for the Certificate course which was approved by the Board for Professional Studies on 17 May 1971.

The structure that has emerged from the discussions of the past eighteen months involves some radical and controversial departures from previous practice. It would be unrealistic to have hoped for complete unanimity among the nearly six hundred staff responsible for the course in the colleges of education, or among all those in the area who have interests in the ways in which teachers are prepared. The Professional Committee has taken the view that the new structure goes a long way towards reconciling the desiderata of accountability and autonomy; provides the kind of flexibility that permits, for example, both concurrent and consecutive training to be carried on within the framework of a single set of regulations; ensures an appropriate balance of professional and academic studies for teachers preparing for work in a variety of types of school, and, finally, takes into account public and professional academic standards.

The new course comprises three main areas of study: professional studies (including school experience), foundation studies in the discipline of education, and a special subject selected from the sciences, the humanities and a range of practical and social science courses. New syllabuses and schemes of work will be prepared on a unit basis. A unit is defined as a course which involves eighty hours of work of which a maximum of forty hours may be timetabled, except in practical subjects where not more than two-thirds may be timetabled. Each student will be required to complete not less than 38 units over the three year course. A minimum of eighteeen units will be in the professional area, ten of these taking the form of practical experience in schools. A further six units must be undertaken in educational theory and eight in the special area of the student's choice. This leaves six units which must be allocated to one or more of the three areas according to the nature of the student's course. Additional work, up to a maximum of seven units beyond the compulsory thirty-eight, may, in certain circumstances, be required or permitted at the discretion of the college Academic Board.

All this provides a wide range of possibilities. For example, an intending teacher of infants might take six extra units in the professional area (giving a total of twenty-four) and two in foundations, perhaps in the form of extra courses on aspects of child development. A student preparing to teach a specialist subject in secondary schools, such as science or home economics, might be required to apply the six unallocated units to work in his or her special subject. Since the situation of colleges and the requirements of studnets vary, some courses may entail extra units beyond the compulsory minimum for all students who enroll for them. The Professional Committee envisaged that the maximum total of forty-five units should not be utilized or required except in very rare circumstances.

Courses for the Diploma and Master of Education are already organized on a units basis, and in the future it may be possible to devise a single framework which takes in initial, further professional and advanced work.

It is recognized that an essential condition for the success of the new pattern is the willingness of the staff of the colleges, no matter what their previous departmental assignments may have been, to work together in the design and teaching of the new courses. This need is nowhere greater than in the professional area. Over the country, as a whole, there has been a wide variety of practice in the way "professional studies" or "curriculum courses" are taught. In some places the work has been undertaken as part of the student's work in his principal subject. It has not been unknown for a variety of practices to exist within a single college. By concentrating all this work within a clearly defined area, and assigning a specific weighting to it, it is hoped that any anomalies of this kind can be overcome. Both subject and education staff will be heavily involved in professional area teaching, which must be planned on a cooperative basis. The Professional Committee has recommended that colleges should consider the appointment of a Director of Professional Studies, who will assume responsibility for the coordination of such work.

Coordination is particularly important if the new area is not to become fragmented into a number of discrete courses and units. A subcommittee appointed by the Professional Committee to consider the organization of courses within the professional area, has recommended that "school experience should be considered as a unifying factor in this area and should be planned to provide a flexible and dynamic interaction between school-based and college-based work". The committee has suggested that in addition to the block practices that will form an important part of the course, a wide range of other experiences with children need to be provided. These can involve informal, out of school contacts, and team teaching, workshop, laboratory and field activities. They need to be jointly planned by the school and colleges themselves. It is hoped that if teachers are involved in the planning stages, they may come to see the colleges as resource centers which can supply at both primary and secondary level groups of intelligent and willing classroom collaborators.

With the introduction of the new pattern, the existing nomenclature of principal subject, second subject and complementary subject will disappear from regulations. So will all requirements concerning compulsory subjects. It will be for Academic Boards to decide which, if any, courses are to be regarded as compulsory for their students. The new regulations do require, however, that Academic Boards should satisfy the School of Education that each student has followed a course of study appropriate to the age range he is training to teach.

In the past, Subject Panels have exercised an advisory role in respect of course proposals originating from Academic Boards. New arrangements have been agreed whereby Panels will report their comments on course proposals both to the college Academic Board concerned and, in parallel, direct to the Professional Committee. On receipt of comments from Panels, Academic Boards will be free to decide to submit proposals direct to the Professional Committee even if the relevant Subject Panel(s) do not support them. It will then be for the Professional Committee to resolve the conflict of views, although it is hoped that most differences of this kind will have been previously dealt with by informal discussion. The new procedure will help to emphasize the importance of the Subject Panels within the structure of ATO committees, whilst at the same time allowing due weight to institutional considerations and the responsibility of Academic Boards for ensuring the unity and coherence of the courses provided in their own colleges.

A new Subject Panel has been established for the Professional Area. It is to include three representatives from each Academic Board and one from each existing Subject Panel and four serving teachers. Existing Panels provide for the membership of all those teaching the subject concerned in the colleges and in the PGC Division of the School. This is clearly impracticable in the new professional area, in which nearly all college staff will be involved in one way or another. The representative nature of the Panel makes it particularly important that appropriate channels of communication are available within the colleges by means of which representatives may be apprised of their colleagues' views and may have an opportunity to make the discussions and recommendations of the Panel widely known.

Students' progress will continue as heretofore to be assessed in terms of the quality of work undertaken throughout the course. There has never been a system of ATO-wide final examinations in this area. External examiners appointed by the Board for Professional Studies play an active and important part in the process of assessment. During the past eighteen months, on the recommendations of an assessment working party, procedures have been agreed to ensure that students are kept fully informed of their progress during the course. Details of all the marks or grades that contribute to the final assessment and, once approved by the Board of Examiners, the final marks themselves, are available to students.

There is one aspect of the new pattern that must be emphasized. The Professional Committee have stressed the need for involving serving teachers in the planning and teaching of courses "to a much greater extent than at present". There are various ways in which this may be done. Academic Board Working Parties charged with the design of new courses in the professional area may wish to co-opt teachers to take part in their discussions. Colleges may wish to consider the possibility of inviting a number of teachers to become "associate tutors" and to assist with work in any of the three areas of the course. Serving teachers are already playing a more active part in the work of ATO committees and panels. To exploit fully the possibilities of greater cooperation with the teaching profession requires national decisions, but there is already a good deal that could be done in this respect by individual colleges.

William Taylor

MAKING ACADEMIC COURSES RELEVANT TO TEACHERS THROUGH FIELD EXPERIENCES

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In the early 1960's a number of leading teacher educators, were recommending that teacher training should begin with an orientation to the profession involving the students in practical experiences in the actual atmosphere of their chosen profession in order to observe, analyze, question and relate reality to theory. The American Association of Colleges for Teacher Education, as early as September 1967, initiated the Urban Education Leadership Development Program involving a consortium of 19 colleges. The District of Columbia Teacher's College elected to participate in the Urban Leadership Education Program by undertaking an innovation in its teacher training education sequence.

The innovation was to offer the freshman students, all of whom are committed to pursue teacher education, two choices:

1. to elect to take the regular introductions to psychology and sociology,

2. or to elect to take a course consisting of the salient content from the introduction to psychology and to sociology along with field trips and an extended period of time to be spent as an overt participant observer in a school or public service agency.

The students in either case received the same number of credits and both sets of students were taught by the same two instructors.

Objectives:

The objectives of the Freshman Field Experience Course were:

1. to introduce the students to the basic concepts of the disciplines of psychology and sociology, including sufficient mastery of the concepts for their subsequent work in these areas.

2. to enable the students to identify and compare various research techniques through various community studies, class activities, and related outside readings.

3. to enable the student to apply the concepts; e.g., to identify the roles, attitudes, values, statuses, and perceptions of persons who formed the community organizations and/or schools in which the student was observing.

4. to offer learning experiences which would facilitate self-evaluation by the students and develop further their self concepts through study of the developmental stage theories, interaction with class members and community citizens, counseling with instructors, meaningful reading, and useful community work.

5. to encourage the student to explore for himself the nature and strength of his committment to a teaching career as well as to expose the student to career alternatives.

Some ancillary but important concerns were the understanding of the student by college personnel in order to counsel and evaluate more accurately. Explicit attention was to be given to the problems of complex organization (schools, government, agencies) and to the power relationships in them. The particularities of urban social forces were emphasized at all times.

Phase 1:

The Field Experience Course met six hours per week and there were approximately eighteen sessions a semester. The first six weeks were, after an initial social event and an orientation, devoted to theoretical foundations and preparation for the field experience.

Phase 11:

The next four weeks were devoted to visits to schools and public service agencies as well as to class sessions in the form of colloquia in which the students, guided by the instructors, reviewed and analyzed what they had observed. The pertinence of sociological and psychological theory was suggested during these discussions of real experiences. It should be noted that these field visits were made in small groups of ten students or less so that the normal dynamics of the situations were less distorted than if a large class moved into a school or agency. Further, the size of the student team enabled the students to interact with the persons of the organization visited on a more confident basis and facilitated the students relating to one another through the medium of shared experiences.

Phase 111:

The last eight weeks of the semester were utilized by students in spending from three to six hours per week as individuals at a school or agency in the role of an overt participant observer doing some useful work while making their observations. Three hours per week of class time was devoted to the same type of colloqium activity described in Phase 11. Each Student had two formal counseling sessions with the instructors. These counseling sessions focused on the field experience but were non-directed. In every case, the time allowed was as long as the student felt was needed.

The students in the Field Experience Course completed the usual academic chores: required book reports, written reports on field experiences, and the usual written examinations. The content and form of the examinations were nearly identical to those given the students in the regular introductory psychology and sociology courses taught by the same instructors.

Results:

The results reported here are based on data generated by a semester of the Field Experience, which was treated as a pilot run, and two semesters which were considered to be the experimental trials. An experimental design was developed for the second semester trial run so that it was possible to compare the attitudes toward the schools and the community before and after exposure to the Field Experience Course. The design also enabled a comparison to be made of the attitudinal changes of students who took the Field Experience Course and those who took the two regular introductory courses.

The attitudinal measures were obtained from application of a specially constructed version of the Semantic Differential Test. The data indicate that although the students in the regular and the Field Experience courses were alike at the beginning of the instruction in their attitudes toward school and the community, there was a marked negative shift, which was statistically significant, of attitude toward the school by the students in the Field Course. The attitude changes for both groups shifted toward unfavorable for the measures on attitude toward the community. The shifts appear to be small with respect to the community and differences between groups were not statistically significant.

These findings are based on a preliminary analysis. However, the results are consistent with those obtained when students were divided into groups: one group given the experience of serving as tutors and the other not given that exposure. Their attitudes were compared using the Minnesota Teacher Attitude Inventory. The results in both cases seem to reflect a "de-idealization" which occurs with exposure to a reality experience.

A poll of the students who took both courses shows that no significant number expressed a desire to change their decision to enter teaching as a vocation. The attitude shifts may well reflect a wholesome orientation, based on reality, to their vocational choice.

Initially, it should be noted that the students in the experimental course did not have a grade distribution markedly different from that of the students taking the regular courses. Moreover, their examination grades were similar. As pointed out, the examinations were as near alike as possible. It appears that the student's mastery of the academic course content was at least adequate as measured by the achievement of those in regular courses.

John Blue, Jr.
Frederic Turk
Gregory Reck

COORDINATED BLOCK APPROACH

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During the fall semester of 1971, Southeastern Louisiana University Department of Education began a coordinated block approach for teaching a course, "Methods of Teaching in the Secondary School". This new approach is predicated on a basic philosophic commitment to blend the practical with the theoretical, affording the students the opportunity to practice sound principles of teaching and learning while pursuing this segment of their professional training. It further allows for a more structured participation in the public schools of Hammond, Louisiana by the prospective teachers. In addition to providing attention to the blending of theory and practice, the Department of Education personnel feel it is a means to educate cooperatively with the other academic colleges within the University and to develop a working relationship with the public schools. After considerable discussion and study by the personnel involved, the coordinated block approach plan was submitted to the Council of Teacher Education and to the Academic Council for approval. Following formal approval by these governing bodies, consultations were held with the Superintendent of Tangipahoa Parish Schools and with the principals and staff of the cooperating schools.

The block, consisting of meeting three times each week, for two hours includes large group instruction, small group instruction, and practice in laboratory situations in specific subject matter areas. The instructional team consists of four university professors and four secondary subject matter supervising teachers from Hammond High School. The responsibility of the latter is to coordinate laboratory experiences in various schools in the area: Hammond High School, Hammond Junior High School, and Annie Eastman Elementary School. This team engages in planning, prescribing, teaching, and evaluating in a well-coordinated joint effort.

Ten hours of large group instruction and thirteen hours of small group instruction were conducted by personnel from the University. Secondary subject matter supervising teachers worked with the university students to provide meaningful observations and learning experiences within the local schools. Learning experiences within the schools, to which a minimum of fifteen hours was devoted, included observing classroom situations, interacting with small groups of students and with individuals, planning and practicing of various classroom methods and techniques, and utilizing various instructional media housed in the local public schools and in the curriculum laboratory located on the University campus.

The following program and student objectives for the coordinated block approach for Methods of Teaching in the Secondary School were developed by the university teaching team:

Program Objectives

1. To draw upon the competencies of faculty in various areas through a team teaching approach
2. To provide for public school and university staff interaction
    a. Involvement of secondary school faculty in the university teacher education program
    b. Maintenance of a proper perspective of present classroom conditions in secondary schools by university staff members
3. To provide continuity in laboratory experiences in the teacher education program
4. To provide individualized instruction for students in the secondary education program
5. To utilize off-campus experiences to provide practical learning activities for secondary education majors

Student Objectives

Upon completion of the coordinated block the students will have gained experience and achieved competency in the following areas at a minimum level of eighty percent as measured by the evaluative efforts of the teaching team.

1. Formulation of instructional goals for a course and development of an overall plan for a term's work, for functional unit plans, and for productive daily classes
2. Establishment of criteria for selection or developing means of achieving formulated instructional goals in the cognitive, affective, and psychomotor domains
3. Construction of successful organizational patterns and selection of appropriate plans for classroom management

4. Selection and application of those methods and techniques that make group or individualized instruction more relevant to the needs of students -- differentiation of group methods and utilization of the microcosm

5. Planning for measuring educational achievement and evaluating instruction, while providing for the growth and development of each student--utilizing criteria appropriate to specific course objectives

6. Reading and comprehending available professional literature relevant to the teaching profession, to instructional methods, patterns, and problems

Budget and Evaluation

Extra budgetary requirements of the project have been minimal. The only expenditure incurred in this coordinated teaching block is the payment of $200 per semester for each secondary subject matter supervising teacher for professional services rendered in cooperating with the University team. A total of $800 has been expended.

Evaluation of the coordinated block approach is to be a joint effort of all persons involved and is to be conducted in light of stated objectives. Discussion, development, and evaluation of instructional objectives, planning, methods and measurement are carried out in small group sessions under the guidance of a member of the University team.

Periodic surveys are made to determine the number and types of laboratory experiences in which each student was involved. At the conclusion of the course each student will be asked to give his or her reaction to the program and to provide information to specific questions contained in a questionnaire.
In order to assess the effectiveness of the large group lectures, three objective tests are to be administered. The results of these tests and a combined evaluation by members of the University team and the secondary subject matter supervising teachers will constitute the final evaluation of each student.

A joint meeting of the University team and the secondary subject matter supervisors will be held in an effort to further evaluate the outcomes of the program in terms of goals established.

It is hoped that a thorough evaluation of the coordinated block approach for teaching Methods of Teaching in the Secondary School will show complete accomplishment of the program and of the student objectives developed by the teaching team.

Clea E. Porter

THE PORTAL SCHOOL CONCEPT

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The Portal School concept was introduced at Florida State University in 1968. As conceptualized it is a name given to a unique type of individual school unit within a school system. Its name is broadly descriptive of its uniqueness. It is a gate through which important educational change can pass. In one sense of the word, the Portal School is a regular public school and maintains as one of its primary missions a responsibility for creating and implementing a healthy learning environment for the pupils it serves. As its label suggests, however, a Portal School has several missions which make it unique. The Portal School must:

1. Serve as a site for continuing the training of beginning teachers.
2. Serve as a principal site for school district in-service training.
3. Serve as an entry point for new school organization, staffing patterns, multi-media curricula, and instructional strategies.
4. Provide a field context for assessment of teaching competence.
5. Provide feedback which can be used for modifying pre-service phases of teacher training, in-service programs, and the role of State Departments of Education in improving the quality of school personnel.
6. Serve as a learning center for use of State Departments of Education and universities in disseminating and evaluating innovative instructional practices and curricula for use in the public schools.

As originally conceived, a Portal School would be a public elementary school employing from fifteen to forty teachers. By agreement with a specific teacher-education program, each participating school district was to designate one or more elementary schools as Portal Schools. Approximately two thirds of the faculty roster of such schools would be made up of first and second year teachers who had had their initial pre-service training in the specific teacher preparation program involved. These first and second year beginners would be teachers, but also students during the next two years and three summers. They would serve as regular elementary school teachers for three fourths time during the regular school term and use the remainder of their time to broaden their professional or academic concepts and to improve their instructional skills. The first summer following completion of the pre-service phase of their program would be devoted to instructional planning with the principal and key faculty members from the Portal School. The intervening summer and the final summer were to be used similarly with the added goal of acquiring the academic credits necessary for a teacher specialty and a masters degree.

Under this original plan, the university and the school system were to employ jointly a faculty associate who would be responsible to the university for further broadening the concepts and refining the skills of beginning teachers, and to the school system for coordinating the work of the teaching teams in the Portal School. The original design concepts left unsolved the problem of providing adequate fiscal resources to operationalize Portal Schools.

Recent educational changes in Florida have dictated a number of modifications to the concept of Portal Schools. For instance, the Portal School design must be modified to provide an entry point for all beginning teachers. Second, the in-service training needs of school districts suggest more attention be given to retraining existing staff members. Third, funding realities dictate that the basic cost to a school district for a Portal School beginning teacher should not exceed that of any other beginner. Fourth, as state emphases shift to demonstrated competence as a basis for certification, the Portal School collaboratively operated by a university and a school district could well serve as a primary site for assessing teacher competence. Fifth, there exists a growing need for universities, school districts, and state departments of education to collaboratively seek optimum environments for disseminating innovative instructional procedures and curricula. The Portal School, with its significant emphases on training can well serve this dissemination purpose.

Who is Trained in a Portal School

The F.S.U. concept of Portal Schools is unique in that it emerges as a vehicle for providing a changed training environment for competency-based teacher education programs. Within the design there is an assumption that the traditional gap between pre-service and in-service education will disappear, and that teachers will demonstrate an ever increasing array of competencies as they serve in the roles for which they are trained.

Ideally, first and second year teachers, newly hired by a school district, are primary targets of training in such a school. None the less important, is the task of carrying on intensive in-service education for experienced teachers already employed in a school district. Therefore, the already employed experienced teacher is a training subject in such a school. In some instances, where a Portal School is in close proximity to a university campus, it is possible for pre-service undergraduate students to utilize the Portal School environment for certain of their training needs. Although not the ideal situation, as projected in this paper, interns from university pre-service programs, not yet fully hired by the school district, might serve in lieu of first and second year teachers as suggested above. In fact, in the two instances of Portal Schools operationalized jointly by Florida State University and a collaborating school district, this latter pattern has been followed, at least in part, as an interim procedure to enable the study of Portal Schools in operation.

Who Trains

Since one of the missions of Portal Schools is clearly the training of teachers, provisions must be made for teacher trainers whose full time is spent providing leadership and training to enhance the instructional and training program of a specific Portal School. It is also highly desirable that university faculty members spend a significant portion of their instructional time working in the Portal School environment. For universities particularly, this represents a major shift in instructional emphasis from priorities traditionally placed on pre-service undergraduate training to a high priority placed on collaborative work with school districts in the in-service training of teachers and the improvement of the quality of instruction for children.

Training within the Portal School is focused both at the pre-service and the in-service levels. The training emphases are practical ones with work geared to improving the context of instruction for children within that public school. Each Portal School has started out by developing teaching teams which include one or more intern teachers from the university. In each instance, a commitment has been made by university faculty members to spend a significant portion of time on a regular basis in the Portal School during which time they have carried on both formal and informal instruction with total teaching teams. For the first time, in 1971-72, several teachers who began as interns in a Portal School will continue as first year, on-the-job teachers in that same school. The instructional program for these beginning teachers will be extended in keeping with original design plan. The coming academic year will also be the first year during which a F.S.U. Portal School actually has a F.S.U. faculty member officed in the school itself. Heretofore, the commitment of university faculty has been on a hours per week basis.

Summary

This paper has examined the Portal School as it was in its inception, and as it is projected to meet an extended set of teacher education and educational change missions. Just as the nature of the Portal School concept has been modified to keep pace with changes in teacher education, so will it continue to change as implementations provide feedback which demand continued modification. This is as it should be.

Portal Schools are being implemented on a small scale in Florida, in Georgia, and elsewhere throughout the country. Alternative models for Portal Schools are being explored, and alternative strategies developed for establishing and operating such collaborative ventures in teacher education. Every institution and school district which wishes to establish Portal Schools must evolve their own model for such ventures. Portal School development in Florida has been primarily a design and feasibility effort. As operational experiences with Portal Schools grow, Florida State University will continue to report its findings in this emerging innovation in teacher education so that others may learn from its successes and failures as it seeks to improve instruction for all children by basic alterations in the model for training teachers in classroom settings.

Norman R. Dodl

TEMPLE UNIVERSITY
PHILADELPHIA PORTAL SCHOOL CONCEPT

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In 1970, Temple University in Philadelphia initiated four Portal Schools. The purpose of these Portal Schools was to improve education in a school building by concentrating sufficient resources across all levels of instruction--students, teachers, parents, administrators and professors. They were initiated with the clear understanding the Portal School Concept was not a University Laboratory Demonstration School, nor was it an experimental school, nor a design to build a single utopian model to be superimposed on all city schools. These experiments of university governed demonstration schools have been tried for years, and most have failed, probably because they were fraught with the intellectual's ideas for someone else to implement and were never institutionalized over time with quid pro quo reality. The Portal School is not simply another gimmick. Rather, it is a mutual agreement among the Philadelphia Public Schools, the School Community and Temple University wherein all parties would pool their personnel and materials. Herein lies the distinct advantage of the Portal School--its unique flexibility to cooperatively develop, implement and continually change programs as the situation demands. The goal was to create a total educational program that would individually meet the needs of each separate Portal School on their terms, wherein student instruction, teacher pre-service education, staff development and community involvement were interwoven. This was an attempt to break down the artificial barriers of discrete educational authorities--the School, the Community, and the University--where each operates as though the assumption were that their educational contribution can be delivered only on their premises and under their sole authority. The purpose was that the learning process should become correspondingly discrete and the learner must put together dissimilar pieces of instruction and somehow internally coordinate them into an education.

It is presumptuous in many facets of teacher education to assume that prospective teachers can be taught how to teach children in the absence of children; and children are not schooled on university campuses. Furthermore, if teachers teach the way they have been taught it is crucial that teacher educators teach by example. An additional and paramount societal advantage to the university is that it must respond to its community in line programs as well as in its public rhetoric. One certain way to improve inner city schools is to improve the teaching conditions in those schools so that they may eventually become more desirable places of employment in the city. Therefore, it is in the best interests of all concerned that institutional (rather than personal or special project)

Portal Schools be created so that there is a vehicle in which to move those facets of teacher education that can be more appropriately learned beyond the university campus. (A concept similar to the medical school-hospital arrangement whereby such hospitals gain more and higher qualified assistance than non-university connected hospitals.)

The advantages of combining all or some of these programs or their components in a single building are compelling:

1. There is a stable population of student teachers in that school for four consecutive semesters who will know the students, teachers and modus operandi in that building and therefore should be better prepared first year teachers for Philadelphia.

2. These programs would provide more professional staff in a school which would result in more programs for pupils. This staff is available for a variety of consultive, testing, workshop, staff and program development, and material construction purposes at no additional cost to the school.

3. Since the same professors who regularly teach courses at the university are in the Portal School, there is no reason why regular university courses could not be offered during the regular school day (or immediately afterwards) since pupils' classes can be taught on a rotating, once-a-week basis by student teachers under university supervision or by professors teaching demonstration lessons while some teachers are engaged in in-service courses.

4. School personnel with released time for program improvement such as supervising teachers, department chairmen, curriculum supervisors, administrators, teacher aides, and district office personnel can participate in staff and program development with university professors and resource personnel.

5. In Portal School programs, evaluation can be more readily achieved since the expertise for evaluation will be part of the team that created the programs. All parties--Community, School, Federation and University--will share in this program evaluation. Evaluation of school district personnel will be conducted under the usual procedures of the school district.

6. With enough programs per building, the University may be able to justify financing a full-time professor per school to assist in the development and coordination of Portal School programs.

School improvement programs initiated in communities throughout the United States, without the input and support of teachers' organizations, have never become institutionalized and have usually resulted in short-term gimmicky projects of high promise and low results, which lasted only as long as the federal or other non-school budget funds existed. The full participation of teachers is important because:

1. Teachers who have already experienced their own collegiate teacher training programs and have developed expertise in a working school situation will be in a position to evaluate the undergraduate courses which are provided for the practice teachers.

2. They will also be in a position to insist on modification and improvement of the post-graduate courses needed for permanent teacher certification or for other certificates.

3. Because they will have the opportunity to observe a practice teacher program in actual progress, they will be able to participate in the evaluation process which will bring about improvements in the program itself.

4. Availability of university courses for teachers in participating faculties will permit them to contribute to the development of courses to prepare master teachers, paraprofessionals and other such employees. These positions, which have been developed by the teacher's union through its negotiations, will be helpful to the teachers already working in the faculties and to the practice teachers.

5. Teachers will have the principal responsibility for choosing and procuring the books, instructional aides and supplies needed for improved instruction. The program should provide time for the development of new instructional materials and methods.

In all cities there have been severe problems between the community and the school, largely brought about through insufficient communication, understanding, and cooperation between the two. Regarding teacher preparation, in most communities the input of civic leaders, professionals and citizens is virtually nonexistent. It is a pathetic situation since all parties have the same goal - the education of students. If this is the goal, certainly the production of better prepared teachers and a more effective curriculum will help solve it. The aim of the Portal School, from administrative structure to implementation, is based on the premise that those closest to the problem must have an opportunity to contribute to its resolution. There is no way of ignoring a bona fide community input at a constructive local level. The following are examples of such input and their corresponding rationales:

1. There is expertise in community leaders which is not generally recognized by universities but is essential in the instruction of prospective teachers who are preparing to teach in inner-city schools. In their regular courses, no university can deliver the field experience, the kinds of practicums about inner-city life, employment, families, gangs, and attitudes, and their relation to schools, that community people can provide. In the Portal School, such community expertise would have a significant influence in the preparation of programs which could better prepare teachers in understanding the environmental forces operating on the students they are to teach.

2. Similarly urban schools with their large bureaucratic organization, are now only beginning to recognize the need for real parental involvement in school programs. The Portal School would provide an opportunity for parity community input and accountability of university programs. By jointly planning such programs the communication network, so essential to parental understanding of the schools, would be built into all programs.

3. By participating in this planning a much more immediate and real opportunity would exist for the employment of teacher aides and other para-professionals in schools close to their homes. This could be easily connected with a vertical and horizontal career ladder and lattice training program for community people which could culminate in anything from custodial training to fully certified and degreed teaching positions.

4. In Portal Schools, the communities' voice in educational priorities of the university would be much more powerful. Thus, all university-related programs in a Portal School building would meet the test of both community and academic relevance.

5. If parents are more involved in the programs of their school, they probably will reinforce the efforts of the faculty and more readily assure their childrens' participation. This is true for both school and after school programs.

6. Accordingly, the increase in parental and other community involvement in all school programs will increase the adult-to-student contact which is so crucial to pupils' achievement gain. However, it is recognized that teacher responsibility will be increased in functioning as an instructional leader.

7. In the past, parents have had to rely on the school system's evaluation of pupil progress most dramatically by city-wide testing. In Portal Schools, parents will have an opportunity to evaluate progress on criteria in addition to mass testing, criteria they will assist in developing.

All inner-city schools are faced with insurmountable problems of student retention, teacher turnover, achievement gain, effective instruction, pupil-teacher ratio, and severe underfinancing in relation to the enormity of their task. It is through the pooling of resources, the streamlining of decision-making, and the improvement of teacher preparation that there can be a hope of a solution. Both the school system and the university now operate a variety of teacher workshops, curricular reforms, administrative training sessions and university-connected programs throughout the city; but these are rarely concentrated in a specific school-community with a sequenced focus. The advantage of a Portal School is that it provides a vehicle by which resources can be concentrated in some of the schools where the problems are most severe. The following are illustrations of the contributions by and advantages for local schools. Most of these items have been explained in previous sections.

1. The artificial barrier between pre- and in-service teacher education can be eliminated.

2. Staff development would include prospective teachers, existing teachers, community leaders and administrators with some possibility for university credit. This staff development would become an integral part of the daily educational program of each Portal School.

3. Through a close association between school, community, and university a professional career ladder might be established in teacher education. Community persons might enroll for high school or college credits, new teachers might become interns in a Masters degree programs and existing teachers and administrators might similarly enter individualized doctoral programs.

The concept is now in its second year. Four more schools are to be added in 1973 to make a total of eight. With a College of Education enrollment of about 10,000 students, this effort has enabled this major American university to establish an institutional commitment that cuts across all of the colleges' multifaceted programs, altered the university reward system so that demonstration of superior teaching in the public schools pays off in terms of rank and promotion, and brought community, practitioner, university faculty, and parents together to work toward the achievement of a better education program.

Paul Eberman

EDUCATIONAL MEDIA, TECHNOLOGY AND TEACHER EDUCATION

EDUCATIONAL MEDIA AND TECHNOLOGY

In grouping together the following studies, it was recognized that rather significant differences do exist between educational media and educational technology. Indeed the differences between media and technology are well illustrated in the studies that follow. Today virtually every teacher education program uses media to supplement other aspects of the training program. While such training is conducted in self-contained classroom arrangements, in which there is teacher dominated learning and utilization of rather conventional textbooks, these are now supplemented by various kinds of software and hardware. Film projectors, television and video-taping, overhead projectors, and audio-cassettes have greatly expanded teaching-learning possibilities in learning situations. Unfortunately, such media has been accepted in name but not in application.

Where media are being utilized they are used almost exclusively to supplement instructional or presentational functions. As such they represent a significant input to the teaching process, such as the use of a film to reinforce a concept or a picture to clarify a situation. The efforts of the Coventry Center to acquaint all preservice teachers with both hardware and software is one approach to assuring the utilization of media in elementary and secondary classroom situations. The Ivory Coast program and the paper describing the University of Wyoming course indicate new or expanded uses for hardware and their ability to reach a wider and more diverse teacher-student clientele.

In some innovative training programs, media are now being used in a broader array of educational activities. These range from the use of videotaped vignettes of real school situations for diagnostic purposes, computerized or programmed modules for self-instruction and videotaping of teaching performances for subsequent self-analysis. The LeMars (Iowa) study indicates how one institution has sought to use a wide range of protocol materials in its training program and the Illinois State University case study indicates how media can serve as the primary instrument for specific and comprehensive programs in professional or theoretical studies in teacher education.

Certainly the Illinois State Program indicates how media can be incorporated into and utilized throughout teacher preparation programs. Educational technology represents that which is a direct result of systematically carrying out and evaluating the total process of learning and teaching in terms of certain highly specific and defined goals and objectives. Studies elsewhere in the text will examine this process but without the kinds of media considerations made at Illinois State.

MEDIA RESOURCES CENTER FOR TEACHER EDUCATION

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In 1969, the Coventry College of Education decided to build a Resources for Learning Center as part of a new education complex. Closed circuit television had already been developed to a considerable extent under the Department of Education and Science plan for encouraging pioneer work in eleven colleges. The building, which was limited in size for economy reasons to 6,345 square feet, currently consists of a television studio with control room, telecine, graphics studio and workshop. Adjacent to the television provision is an audio-visual laboratory with equipment room, containing a wide variety of aids for teaching purposes; a series of darkrooms for photographic work and a viewing theater for film and television. In a central position is an information room where are housed pictures, charts, kits, films, filmstrips, slides, records, tapes, and booths for viewing, listening and copying.

Centralization gives access to a range of facilities otherwise impossible to provide; it ensures maintenance in good working order, provides efficient technical assistance where required and ensures documentation. There are, of course, certain resources available on a departmental basis: these are either peculiar to a particular department such as the language laboratory; or justified by especially heavy use such as audio equipment for music; or comparatively inexpensive such as tape recorders and slide projectors. In addition, software required frequently by staff for lectures has usually been retained under departmental control. Apart from these exceptions all equipment is ordered, serviced, loaned and stored in the Resources Center, and it is coming to be increasingly relied on as a source of information about non-book material. An institution starting from scratch may decide to carry centralization much further, but in this case necessity has bred a natural reinforcement of the Center's audio-visual policy in the departments.

Objectives

The change in the style of learning that it is hoped to bring about through the resources center is from one based chiefly on verbal sources, to one in which the potentiality of other media to assist in the achievement of educational objectives is considered as a matter of course. It is true that the modern student is, as a recipient, familiar with the media for enjoyment and possibly for enrichment of experience, but this does not mean that he regards himself as a user, or the media as an essential vehicle for study or creative work. It is also intended to counteract the idea that serious learning only takes place through direct contact between teacher and taught, by providing material in a variety of media which can be presented through various devices not necessarily operated by the teacher. Attention is therefore directed to the learning process and to the key point in the teacher's role, the selection of material, through which children and students can most effectively learn.

The center is also meant to demonstrate the fact that a teacher is not a helpless figure cooped up in a box of a classroom fighting a losing battle against the media and other outside influences. On the contrary, all the resources of the world lie open to him if he knows how to call upon and exploit them. These may range from recorded radio programs, or packages which form part of a school council project, to the techniques of a good teacher and the response of his class captured on closed circuit television. The last example underlines the fact that the recording of experience, its recall and the subsequent possibility of learning and improvement is the essential infusion of modern technology to training, in this case the training of teachers. It is argued here that these aims can only be fulfilled if students and teachers are thoroughly familiar with the working of devices, experiences in a variety of material, its selection and adaption to the educational needs they have in mind, and able to use the resources of modern technology for their particular professional purposes.

Program

In its first two years the center has concentrated on three main activities: the provision of courses, an advisory and loan service and the production of television programs.

A familiarization course of 20 hours duration, taken by all students, includes instruction in the use of all the more usual kinds of equipment, information on the sources of material including broadcast programs, criteria for their selection and practice in making and adapting materials. Use is made of lectures to large groups, reinforced by handouts and instructional kits to ensure that there is time and opportunity for practical work and discussion of criteria with tutors. Although an increase in confidence on the part of the teacher through knowledge of how to handle the media is one aim of the course, stress is also laid on the paramount need to ensure active and genuine learning on the part of the pupil. There is a more advanced course of approximately 120 hours per year (4 hours x 30 weeks) for a selected group of students which includes the making of television programs and a more thorough study of the concepts of educational technology and theories of communication. Courses are also available for members of staff of the college, and from time to time, for those of other colleges and for teachers, especially in the use of television.

Students may use and borrow a wide range of materials which they can examine before use in the facilities provided. An advisory service is available relating both to the choice of materials and the possibilities and methods of adaption. Whereas, in the early days of the center students tended to inquire only about pictures and charts, they are now turning to a more sophisticated use of film strip, slides, loops, kits and tapes. They appear to be convinced that they need a variety of material for teaching, that it should be available in a central location, and that they need to retain the knowledge of how to use the equipment, although the familiarization course is in the first of their three years at college. Services especially valued by staff are the pre-viewing of film and assistance in tracking down or making slides or tapes.

Closed circuit television was started in the college to convey lectures to large groups of students. More recently the tendency has been to abandon "the talking heads" approach, and to concentrate on the televising of such lectures as require the welding together of demonstration, explanation and illustration by moving diagrams, slides and sound effects. The mobile van or portable equipment is used to bring experience, usually of a professional nature, to students, though the studio is used for cutting and editing. Creative use of the media is part of the drama course, while magazine-type programs made by student groups might be classed as entertainment or possibly news.

Staff, students and teachers in schools have joined in the making of programs. Among those completed have been lecture demonstrations in science, sociology and art history; the observation of young children in activity periods, the study of new curriculum material and its explanation to students and use in schools. Also undertaken have been a class project on local history, immigrant groups at work on language, and simulation of problem situations, e.g. the beginnings and ends of lessons, interviews, and experiments. The latter have enabled study of one's own performance in teaching through playback, practice and repetition for improvement in the teaching process.

Up to this point there has been a concentration on the professional needs of present students, and to a lesser extent those of the staff of the college. Despite the fact that the college does participate in in-service courses, it is not yet responsible for in-service education of its own ex-students or any other teachers. There is no doubt that if it had more responsibility in this direction there could be a much greater use of the Center, particularly during the vacation period when it is only used regularly by small Department of Education and Science courses. A program of systematic in-service courses leading to some specific qualification should be based in the Center.

There is a strong case for providing more self instructional material, including audio-visual material, for the students'study at their own level in what might be called the academic or liberal arts element in the course, and also to a greater extent than is done already in educational theory. The feasibility of providing such material for college students on a national basis is being investigated by N.C.E.T. Although the Center is geared to producing this material, the provision of storage space and of booths for listening and viewing would require a further building program, for which space is available.

In colleges of education there is some argument as to whether new media courses are likely to be effective if given separate from those relating to educational principles and outside the departments whose subjects students are going to teach. The answer seems to be that such courses must be given systematically by experts with material and devices on hand, but that effectiveness does depend on linking closely with subject and education departments in the further exploration of suitable material, in practice in school and for the reinforcement by educational theory. The fairly wide use and understanding of new media in the college is of great assistance to the Center's work.

J. D. Browne
Hugh Williams

AN INNOVATION IN TEACHER TRAINING: EDUCATIONAL TELEVISION IN IVORY COAST

Ministry of Education
Abidjan, Ivory Coast

In 1969 the legislature in Ivory Coast voted to create a normal school to train a new kind of primary school teacher. This was the first step of a vast reform designed to modify the philosophy, structure and techniques of education in Ivory Coast. Ivorian education had only marginally changed since the French colonial policies became an Ivorian legacy in 1960 at the country's Independence. This article will limit itself to two innovative aspects of the educational television (ETV) project: its general scope and the new student-teacher relationships.

The scope of the ETV project is particularly vast in the multiplicity of contributing financiers and in the number of audiences to be reached. The major sources of aid to the project are the following: the Ivory Coast government (general budget plus the Ministries of National Education and Information); France (French Technical Assistance, ORTF ((French National Radio and Television)), and research organizations); Canada; the European Development Fund; Unicef; Unesco-UNDP; and the World Bank. Officials from sources of bilateral or multilateral aid meet four times a year under the chairmanship of the Ivorian Minister of Education to coordinate the multi-faceted program of educational reform.

This reform can be described by enumerating the audiences to be reached. The first audience is pre-service teachers. These are being trained in the model normal school, Ecole Normale d'Instituteurs in Bouake or in one of the CAFOPs, or centers for pedagogical and rural leadership. The students, who are selected by competitive examination after having completed the first cycle of secondary school, are supposed to become familiar with teaching techniques which appropriately accompany televised instruction. The second audience is in-service teachers who are being brought periodically to the ETV Complex for retraining and who also can view the special programs designed for them on the afternoon television. Thirdly is the principal target audience: primary school pupils. In 1971-72, 20,000 first graders were exposed to three fifteen-minute programs a day, in French, math, and non-verbal communication. The programs have been produced in Ivory Coast especially for Ivorian children. While the first three audiences have already been operationally integrated into the ETV scheme, there are still another three audiences which are only projected components in the long-term scheme.

Some thought has been given to the fact that when the whole primary school cycle of six years has been transformed by the new pedagogy (in 1977) it would be a mistake to reintroduce the primary school graduates into a framework of traditional schooling. That is, plans are being made to add audio-visual components and other aspects of the new primary school education to secondary education. Secondary school, however, will receive only ten per cent of the Ivorian students who begin in first grade. A more crucial problem for the country's political and economic future is to turn the primary school leavers (the other ninety per cent) into productive citizens. This task will be faced in a novel "post-primary" cycle where the untrained school leavers will take a two-year course in rural centers, equipped with television, to learn rural trades. Finally, the remaining audience to be reached is the adult population. It is thought that the educational level of rural Ivorian adults can be raised by providing them standardized literacy programs with trained extension workers reinforcing the televised message in rural areas.

The fullness of the projected television day attests to the Ivorian government's intention of reaching multiple audiences. Presently the educational television is incorporated into the single national channel, which itself was broadcasting only about six hours a day. Now, first graders spend close to an hour each morning before their classroom set, and their teachers watch each afternoon a short presentation of the following day's programs. Once a week a special program is organized to answer questions teachers have sent in from the field; during this afternoon session children are dismissed and all primary school teachers in the TV schools are urged to watch and subsequently discuss the broadcast. (For example, teachers have shared with the ETV Complex the following predicament: "You want us to introduce non-verbal skills, such as painting, into the curriculum. But we have no materials to do this. " To respond, staff at the Complex prepared and broadcasted a demonstration where an Ivorian tele-teacher physically ground up charcoal, chalk, and earth from termite mounds and sifting them added paste and water to create three different shades of usable paint. In such a fashion teachers throughout the country can witness how one can ingeniously with local ingredients offer instructional opportunities to their pupils.) When the other five grades of primary school, the post-primary, secondary, and adult cycles are added, the network, currently underutilized, will be completely saturated. The possibility of creating a second channel to permit the TV to reach so many audiences is under discussion.

Traditional student-teacher relationships in Ivory Coast present the image of an omniscient, authoritarian and complacent teacher and a passive, uninquisitive and uncritical student. The primary school atmosphere marks one deeply, so that any change to a different mold is difficult. A student in the new teacher training program looked back on his experience, which was typical of that of many of his peers:

> In school we learned everything by heart. I remember absolutely nothing that I learned by heart during those years except a little mathematics. . . . We would put up our hand to answer a question and the teacher would yell, "Are you going to give a stupid answer again?" So we didn't speak in class for fear of giving a wrong answer. The teacher would hit us . . . . . For a long time I wanted to be a teacher just to return all the beatings I received. . . . We could not ask questions until CM2 (sixth grade), and all exams until then were written so we never acquired a facility with the spoken word. We worked only for ourselves individually, never in a group, even in secondary school. . . .

This testimony shows the set with which students viewed any educational enterprise. Once admitted to the new normal schools, they were expected to change their behavior patterns radically. Students were encouraged to say what they thought, to question and to criticize. They were introduced to "workshops" which replaced classes where the students sat in a circle with the leader (sometimes a teacher, sometimes another student) instead of formalized rows beneath the professorial podium. Rather than being talked to, students were responsible for initiating their own learning experiences and for asking the teachers for guidance, not the answers. Simply reading down the list of workshops gives evidence of instructional alternatives which are considered revolutionary in a Francophone academic setting: programmed instruction language laboratory work and linguistics, audio-visual aids, group dynamics, modern mathematics, and rural community leadership training.

Of course, the objective of introducing new areas of inquiry, new work methodologies, and new teacher-student relationships is to prepare the future teachers to change what goes on in an Ivorian classroom in a certain manner. The profile of the new brand of teacher would be this: the Ivorian teacher should understand how a televised message is constructed; he should demonstrate his skill in communications by preparing pupils for the TV program and by following up the broadcast with adequate drills and exercises; in addition to television, he should apply various modern techniques to advance pupil learning, to develop pupil creativity, to encourage pupil participation, and to achieve a closer harmony between the Ivorian school and society.

Since ETV broadcasts have just started and the newly trained pre-teachers are not yet in the field, no statement can yet be made on the extent to which such goals have been attained. After great difficulty in obtaining financing, the ETV project has secured the service of a modest external evaluation team (contributed by the American and West German governments), which will begin work in the spring of 1972. From the research performed on the model teacher training school, however, one can affirm that indeed elements of a major pedagogical innovation have already been introduced.

A COMPETENCY-BASED PROFESSIONAL SEQUENCE FOR SECONDARY TEACHERS

College of Education, Illinois State University
Normal, Illinois, United States

It has become increasingly apparent in recent years that the individual, isolated course organizational pattern common to the professional education program at the university level has failed to utilize human and instructional resources efficiently and effectively. Trends in professional teacher education toward more personalized applied experiences obligates university personnel to search for those organizational and instructional patterns that facilitate the dissemination of relevant professional knowledge and provide for the acquisition of necessary teaching skills and competencies. What is required, then, is the creation of an integrated, sequential program of professional education learning experiences in which the student can engage not only in direct, formal learning, but also in independent study and self-directive learning as well.

This pilot project represents a redesigning of the existing secondary level professional education program for junior and senior level pre-service students at Illinois State University. The professional education program has undergone a major restructuring of its basic organizational plan with respect to its: 1) identification of desirable professional competencies; 2) move toward individualized instruction; 3) patterns of instructor-student interaction; and 4) increase in the use of instructional technology.

The project cuts across course boundaries in order to offer as its basic organizational plan a sequential, articulated eleven semester hour program of professional education under the guidance of instructional teams rather than individual course instructors. The project also provides for the articulation of theory and practice in its basic design. Individualized and small group feedback is supplied to aid in the sequencing of objective acquisition and in the gradual accumulation of skill in teaching. The eleven semester hour program encompasses those cognitive, affective, and psychomotor competencies normally acquired through the following individual courses: 1) American public education; 2) secondary education; 3) secondary school reading; and 4) educational psychology.

The development of the project proceeded through three highly interrelated stages. The nature of the three developmental stages was such that progress in one stage facilitated progress in the other stages.

Stage I

Identification of Desirable Professional Education Proficiencies and Appropriate Instructional Modes

Phase 1: Determination of the content-skill structure of professional education courses in terms of general topics or areas of concern

Phase 2: Identification of specific cognitive, affective, and psychomotor competencies in relation to the content-skill topics or areas of concern

Stage II

Identification of Patterns of Instructor-Student Interaction

Phase 1: Analysis of the role of the instructional team member in relation to his responsibilities under the new organizational structure

Phase 2: Identification of those instructor-student interactional patterns which would facilitate the closer personal involvement of the instructor with the student in the new organizational structure

Phase 3: Initial identification of logistics and administrative problems involved in the move to total student involvement

Stage III

Determination of Appropriate Usage of Instructional Technology

Phase I: Identification of instructional technology which would facilitate the acquisition of competencies in various instructional modes

Phase 2: Development of those instructional aids, procedures, and techniques which would facilitate the acquisition of behavioral competencies in the various instructional modes

The initial success of the project depended, to a very large degree, upon the ability of the content-skill area specialists to identify and to agree upon a common content-skill scope for their respective areas and upon the ability of the area specialists to identify and to agree upon common cognitive, psychomotor, and affective behavioral competencies.

The ultimate result of such agreement gave the directions for the identification of a common set of behavioral competencies for each area which provided the instructional guidelines within which the pilot study instructional teams could work.

Without such specified agreement, an area team specialist would be free to plan his own isolated course goals apart from that of his area colleague. Such action could lead essentially to the same fragmentation of content, skills, and behaviors common to the independent course structure.

At the beginning of each semester, a general orientation program is scheduled in order to familiarize the students with the program. At this time, each student receives a Professional Sequence Guide containing information essential to his movement through the professional education sequence. The instructional program, scheduling of learning sessions, specific procedures, evaluation policies, etc., are explained in the Handbook.

All students are assigned to instructional teams. Students meet with the instructional team members at designated places on campus immediately after the orientation session. Instructional team members explain the program in greater detail and answer any preliminary questions which the students might have. Students are assigned to one team advisor at this time. The students also sign up for their initial conferences with their instructional team advisors at this meeting.

Responsibilities of Instructional Team Members

Instructional teams of 4-5 full-time equivalent members (plus graduate students) are assigned to each group of 300 students. Each faculty member on an instructional team serves as the chief professional education advisor for approximately 1/5 of the students assigned to the total team. Further, each team member serves as a general advisor to all students in a particular team in his own area of expertise. Each instructional team continues to work with the assigned students over the two semesters of the program.

Instructional team members conduct regular meetings in order to: 1) evaluate the progress of individual students; 2) evaluate the efficacy of each student's professional sequence program; 3) evaluate the nature of the professional education program, as well as its short and long range effect upon the professional preparation of the student; 4) evaluate the content and skill scope and sequence of the professional education program; 5) evaluate continuously the minimal competencies established for the professional education program; 6) identify and prepare those instructional aids which will facilitate student involvement and student learning; and 7) evaluate the procedures and methods by which the students are required to demonstrate their proficiency of stated objectives.

The provision of various instructional modes and the preparation of instructional aids by which the content and skill competencies may be acquired represents a major feature of the professional education sequence. Specifically, instruction is provided by means of: 1) large group classes (live lecture, film, videotape); 2) occasional class sessions; 3) seminars; 4) individual study and projects; 5) observation and clinical teaching in a laboratory secondary school; 6) micro-teaching; and 7) mediated instruction in the Learning Laboratory (tape-slide presentations, films, audiotapes, videotapes, etc.).

The instructional emphasis throughout the professional education program is directed toward the attainment of proficiency in the stated competencies and not upon the amount of time spent in structured classroom settings. Instructional modes are altered as the need arises or as the preparation of instructional aids facilitates the possibility of different instructional modes.

The effective utilization of the Learning Laboratory is a key element in the efforts of project personnel to promote the efficient and effective utilization of human and instructional resources.

The Learning Laboratory is a multi-media center where students come for non-printed mediated lessons (e.g., tapes, slides, TV, films, computer related instruction.)

In September 1971, the Learning Laboratory was established to house 30 carrel positions, each equipped with a 12" x 12" x 12" cabinet housing a 9" black/white TV monitor, touchtone keyboard for requesting programs from a remote source and for responding to questions in the program, headphones, and volume control.

Eighteen of these stations will have random access to thirty-two audio tape programs and 900 slides stored on video disc, (Random access means that the stored materials can be retrieved by a user at any time, and once retrieved, remains under the user's control). In addition, still pictures can be synchronized to the audio tapes for audio-video lessons. If responses (via keyboard) are required for questions built into the lesson, the student can be branched automatically to other audio tapes and/or still pictures, depending upon the response.

All thirty student positions will have access to videotaped programs from the source center available on a scheduled basis. Additionally, all thirty positions will be able to call up six additional audio programs on a scheduled basis from the console now available plus video programs from the campus closed-circuit television system.

Since all thirty stations are equipped with audio tape playback units, students can request tapes from the learning Laboratory library for individual use in the carrel. Each carrel is also equipped to make use of a carousel slide projector so students can make individual use of audio tapes and/or slides.

The services and the materials of the Learning Laboratory help to facilitate effective and efficient utilization of human and instructional resources by providing the high level of independent study potentiality required in the new professional sequence.

Upon completion of the stated competencies, each student will demonstrate his completion of that element of the program by means of: 1) objective examinations; 2) subjective examinations; 3) preparation of papers; 4) oral examinations; 5) production of mediated lessons, or by whatever means deemed suitable by the team specialists. After mastery is demonstrated, the student and the chief advisor indicate that the specific competencies have been met by recording such information on the student's permanent record.

Examinations are conducted on a regularly scheduled basis or at the request of the student. If the student requests an examination over some element of the professional sequence at a non-scheduled time, the chief advisor arranges the examination for him.

A report of the student's examination will be forwarded to the chief advisor for placement in the student's permanent file. Should the student fail to demonstrate proficiency, the area specialist and the chief advisor will meet with the student to plan an appropriate course of action.

Henry J. Hermanowicz
Leo E. Eastman

THE UNSTRUCTURED PROFESSIONAL SEMESTER

Westmar College
Le Mars, Iowa, U.S.A.

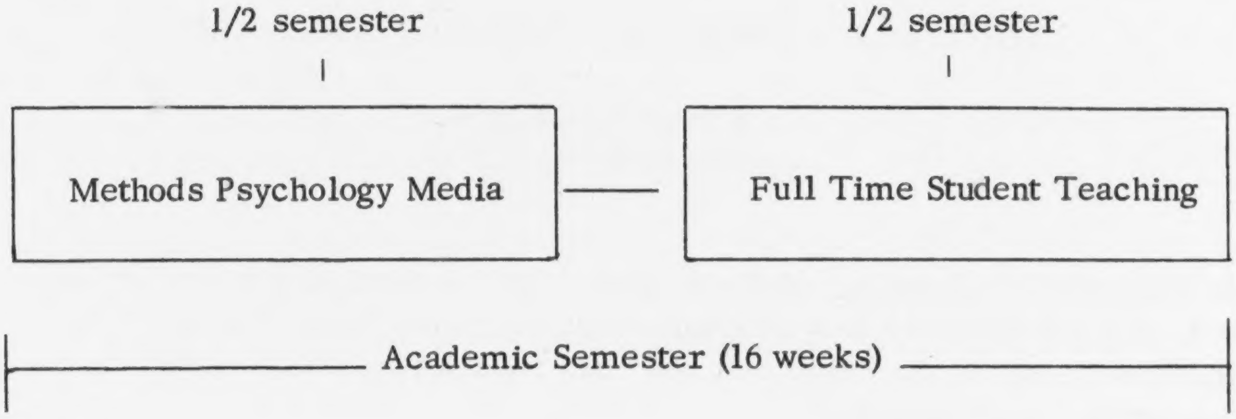
The Education Department of Westmar College, a small college in Le Mars, Iowa, has established a new program of performance based teacher education rooted in the belief that you "can't teach teachers to teach" in a structured course situation.

Pre-professional students, who may someday want to teach, are provided with unlimited opportunities to act as aides, associate teachers, and observers while engaged in education and psychology classes and during interim experiences. The student who thereby becomes committed to teacher education, climaxes these experiences during the senior year when he enters the Unstructured Professional Semester.

This professional semester was formulated in the realization that a new approach could not be attempted under the familiar course structure which restricts free movement of students and creates infinite scheduling problems. What was needed was a medium where course content, teaching techniques, and educational media could be immediately used and reinforced through micro-teaching and group experience.

Westmar has, therefore, unstructured its professional education semester and now offers two eight credit blocks on a pass/fail basis. The first block, concerned with methods, psychology, and media now requires both elementary and secondary candidates to focus on the program for the entire day, free from other college responsibilities. The two levels are combined where knowledges are similar and are team-taught by professors from the Education Department and from other academic disciplines. Teaching skills and techniques serve as the basis for instructional objectives and provide criteria to measure a student's understanding through micro-teaching under closed circuit television.

Students are required to construct units and lesson plans under the guidance of special methods instructors and to teach from these units. Similar lab situations are required for test constuction, with area school personnel and educational psychology instructors acting as resource personnel. Continuous observation by the student in area classrooms is expected during free time to reinforce and amplify the learning experience. This is climaxed during the second eight week block of time when provision is made for full time student teaching in an area school.



This program is predicated on the wise use and evaluation of the following departmental objectives:

1. The Education Department has pledged to develop teaching skills through action based performance.
2. The Education Department has pledged to use the unstructured block of time to teach the use of educational media and to provide opportunities to use them.
3. The Education Department indicated its determination to offer earlier exposure to the profession of teaching through the use of teacher aides or interns within actual classroom situations.
4. The Education Department has pledged to provide as many opportunities as possible for students to micro-teach to groups of their peers and to cooperating school classes.
5. The Education Department has pledged to promote interdisciplinary cooperation through team teaching, in special methods, by sharing supervisory loads, and through visiting teachers.
6. The Education Department has pledged to solicit expertise from the public schools in areas of concern for prospective teachers.
7. The Education Department has pledged to seek support in securing facilities that will allow new approaches to be undertaken.
8. The Education Department has pledged to consistently evaluate and update its program. Student help in planning will be solicited and evaluating studies will be shared.

The Unstructured Professional Semester at Westmar College made possible the utilization of many micro-courses in the pre-professional preparation of our students. The micro-courses were concentrated scaled-down courses, topical in nature and with a limited set of objectives and time allotments. They gave the student an opportunity to focus on new and specific materials and methods or techniques with built-in provisions for feedback.

These micro-courses were selected in terms of student needs from the many possible topics included in the traditional Education Psychology and Measurements, Foundations of Education, Secondary and Elementary Methods, and the Special Methods courses. The following is a listing of the micro-courses in the current program:

History and Organization of Education
Professional Employment
Legal Aspects of Teaching
Learning Theories
Motivation
Attitudes and Values
Individual Differences
Differential Cognitive Abilities
Achievement
Grouping
Unit and Daily Lesson Plans
Use of Cumulative Records
Grades and Evaluation
Test Construction (Classroom and Standardized)
Elementary Statistics
Need Gratification
Behavioral Deviations
Classroom Management
Creativity in the Classroom
Community and School Resources

Staff involvement in the micro-courses was determined on the basis of preparation, experience, interest, and the nature of the methodology to be employed in teaching the micro-course. Lectures, large and small group discussions, written materials, role-playing, simulations, video-tapes, films, workshops, observations, student aide experiences, and micro-teaching were among the techniques employed in the micro-course experiences.

The micro-course offering included simulations of classroom teaching problems which can present barriers to effective teaching. In addition, modifications and adaptations of the SRA Teaching Problems Laboratory "critical teaching incidents" were developed for use in the micro-courses.

The following list indicates the problems taken under consideration and the medium used to implement student involvement.

Statement of the Problem	Medium
1. Handling the constantly disruptive child	Video-tape
2. Getting the students to do homework	Written Role Playing
3. Writing and evaluating behavioral objectives	Written Lab Experience
4. Handling student's agressive behavior	Video-tape
5. Finding supplementary instructional material for an area of study	Unit Constr. Written
6. Finding appropriate materials for students	Written
7. Differentiating instruction in consideration of individual differences	Written Role Playing
8. Motivating students	Video-tape Small Groups
9. Copying with a distaste for routine work such as grading papers, etc.	Written Large & Small Groups Video-tape
10. Knowing what to do with students who finish work early	Video-tape
11. Seeing the relationship between undesirable behavior and its consequences	Written
12. Involving students in group discussion	Video-tape
13. Discussing student's unsatisfactory achievement with their parents	Written Role Playing
14. Involving social isolates, disliked student, etc., in classroom interactions	Written Sociometric Devices Small Groups
15. Interpreting student's true capabilities	Written Role Playing
16. Having students do independent work	Video-tape
17. Telling parents when their children have serious problems	Written Role Playing
18. Providing appropriate work for the rest of the class when working with a small group or with inindividual students	Video-tape
19. Helping a student with an undesirable home situation	Small Groups Role Playing
20. Securing help in selecting instructional materials	Written
21. Involving students in self-evaluation	Written
22. Developing patience and tolerance in working with with students, teachers, and administrators	Video-tape
23. Projecting enthusiasm in your teaching	Written
24. Involving parents in their children's school and classwork	Written
25. Coping with anxiety related to giving failing grades	Written Role Playing
26. Overcoming nervous feeling when supervised	Video-tape
27. Contacting an unresponsive parent	Written
28. Modifying undesirable student	Written

In addition to the micro-courses and the critical teaching incidents, the students were involved in controlled practice teaching sessions. A form of controlled practice in the training of teachers similar to micro-teaching was part of the experimental teacher education program used at Westmar. The focus was on instructing students in the use of certain technical skills of teaching and allowing for practice of these skills under conditions less complex than the normal classroom situation. This was accomplished by the teaching of individual lessons in a student's subject area to small groups of students. Supervision, video-tape recording for feedback, and the utilization of student feedback, were part of these scaled-down teaching encounters. The following is a list of the technical skills of teaching:

1. Attention producing behavior
2. How to open a class discussion
3. Use of examples and illustrations
4. Achieving closure
5. Techniques of lecturing
6. Establishing appropriate frame of reference
7. Controlling student reaction
8. Providing feedback
9. Control of participation
10. Asking questions
11. Use of high order and probing questions
12. Using reinforcement
13. Use of redundance and repetition
14. Teacher silence and non-verbal cues
15. Student-initiated questions

Some of the strengths that Westmar feels have developed from its Unstructured Professional Semester are:

1. Prospective behavior during student teaching is more easily predicted because of the opportunities that the staff has had to observe students in micro-teaching sessions.

2. The emphasis is on the acquisition of teaching skills by practicing them.

3. Learning can be immediately reinforced because we control the class hours in the time block.

4. Again, because of our ability to control time, we can easily move from large to small to individual instruction without conflict.

5. All college support for teacher education is stimulated through team teaching, unit and lesson planning, and cooperative micro-teaching situations.

6. Community involvement is also heightened through the use of visiting resource personnel from area schools.

7. Pass/fail grading in each of the eight week time blocks takes the pressure off grades and stimulates learning skills not facts.

8. Control of time further enables the department to implement changes that are warranted without complex scheduling difficulties.

IN SERVICE PROGRAMS FOR WYOMING EDUCATORS VIA VIDEO - VERB

College of Education, University of Wyoming
Laramie, Wyoming, United States

Addressing itself to the needs of teachers in the remote areas of one state in the western United States, the College of Education at the University of Wyoming developed in-service programs or courses using videotapes and the Victor Electrowriter Remote Blackboard (VERB). The only four-year collegiate institution in Wyoming, the University is located in the extreme southeastern corner of the State. This distance factor plus long cold winters make traveling difficult for school people to attend evening or Saturday in-service courses.

Under the program, two semester units of graduate extension credit are offered students and teachers in the state's elementary and secondary schools who receive tele-lectures. The courses consist of eleven 2 1/2 hour sessions. Each session begins with the showing of a one hour videotape prepared by university personnel at the University of Wyoming TV Studio. These videotapes are broadcast by cable TV stations throughout the state to program participants. Following the TV presentation the course participants then assemble in the VERB studio in their communities. These communities are linked together by telephone lines so that communication between the course participants as well as with the instructor is possible. The Victor Electrowriter Remote Blackboard further enables participants to receive anything written on the electrowriter in the Laramie studio.

The VERB equipment that is used enables the instructor to write (or draw) on a transmitting machine and the image is carried over the telephone lines to a receiver at each location. It is picked up at each locality on a roll of transparent material and then projected on a screen, so that the image is similar to one that might appear on an overhead projector.

The eight communities that were a part of the 1971 program ranged in distance from 250 to 335 miles away from the university campus. Over ninety participants were enrolled in the in-service courses offered by the university during the experimental period. While these participants voiced some criticism of the lack of personal contact between the instructor and the class members, this was partially compensated by the use of the two media together.

Assessment of this in-service effort seems to indicate that the use of electronic vehicles to bridge the distance gap and to bring the resources and personnel of the College of Education to the teachers and administrators in the State of Wyoming has been successful. Thus, additional courses are being developed to provide in-service programs for Wyoming educators via Video-VERB.

TEACHER EDUCATION FOR RURAL TRANSFORMATION

TEACHER EDUCATION FOR RURAL TRANSORMATION

Human history may be traced as a struggle between country and city. As the term "civilization" suggests, the conflict was unequal because the city was able to stamp its cultural imprint on agrarian peoples, but its dominance was also inconclusive. For many centuries, cities appeared as urban islands in a rural sea, embracing only minority populations. Cities rose and fell; the rural sea remained.

With the industrial revolution, however, the city finally began to win. The result is the creation in some parts of the world of vast industrial societies possessing important urban attributes widely distributed throughout their territories. Nowhere is this historical process complete; and everywhere there is concern for the relevance of education to the special needs of rural dwellers in societies which are undergoing industrial transformation at one level or another. Formal education, and the preparation of teachers for it, began essentially in the polis and the students historically came to the cities to receive it. Today, as a result of mass media and modern modes of transportation, the attributes of urbanization are expanding into non-urban areas and there is a concerted effort to restructure rural education in response to and in support of this transformation.

In the following section, four programs of rural-oriented teacher education are described. In geographical scope they range from a rural section of the United States to the villages of Thailand. The theme common to all is the special orientation necessary for the effective training of teachers to perform competently and willingly in rural areas. Competency for rural teachers requires a deep understanding of the structure and dynamics of rural society so that the usual knowledge and skills, which are primarily urban oriented in most formal educational systems, can be effectively translated and imparted to students from rural backgrounds. Moreover, because so many countries are currently stressing the need for less migration to the cities and more rural development, the teacher must also function as a skilled agent of change in the life of the community.

Equally important as ability is the need to develop and enhance the motivation within prospective teachers to accept the challenge of rural education, in the face of the urban-oriented academic ethos. One means of achieving this objective, as illustrated by the program in Idaho, is to select qualified teachers already living and established in rural areas and to upgrade and raise their competency. In another program, in India, prospective teachers participate in a carefully planned "retreat" in the countryside during which they learn of the joys and satisfactions inherent in a rural way of life. But whatever the procedures, the importance of the objectives of rural education and development call for increased efforts to develop innovative and creative programs to fulfill them.

RURAL TEACHER EDUCATION

Ministry of Education
Bangkok, Thailand

The Rural Teacher Education Project for improving rural education (TURTEP) was launched in 1956 with UNESCO assistance. Since 1961, the project has been jointly assisted by UNESCO and UNICEF. The former assists with experts and the latter provides support in materials and equipment. On the whole, the project has been carried out by the Teacher Training Department of the Ministry of Education without any direct allocation from the government budget.

The project was started in view of the fact that there were problems of unqualified teachers and insufficient educational materials, causing a low standard of education in rural elementary schools. Since Thailand is an agrarian country where the majority of the people live in rural areas, there is a great need for training rural teachers to serve in those rural communities.

With the cooperation of UNESCO and UNICEF, the Ministry of Education has attempted to develop a suitable and productive program for the training of rural elementary school teachers. The object, content, and method of operation of the program are stated in the project description as follows:

> "The purpose of the Rural Teacher Education Project is to establish a pilot center for the training of rural school teachers who will be competent to carry out the double role of educator and community leader. The training provided will combine the techniques of fundamental education and the method of teaching children, and it should enable teachers to relate their teaching of the subjects to the concerns and needs of the school children at different ages. Furthermore, they (the teachers) should acquire the techniques of guiding adults and youth who are out of school in the improvement of their community and of their living standard-health, citizenships, making a living, housing, etc. In this way, the school under them will serve as an educational center and the community center as well. "

The Rural Teacher Education Project has adopted the principles of community school and community development into its program of operation. It aims to transform rural elementary schools into community schools and to raise the standard of living in the rural communities. Therefore, the student teachers are trained to be both educators and community leaders. After graduation, they should be capable of giving the school children a good education as well as capable of guiding the adult members of the community in which they serve to raise their living standards.

In 1956, the project was first started at Ubol Teachers Training College in the northeastern province of Thailand, with 12 selected co-operating elementary schools and 23 rural communities. By 1967, all teacher training institutions have adopted the principles of TURTEP with very satisfactory results. At present, all the 25 teacher training schools and colleges participate in this project, including 190 cooperating rural elementary schools, and 420 villages, involving 1,600 school teachers, 52,000 boys and girls with the total population of about 310,000 people. In 1968, approximately 5,700 students graduated from these 25 teacher training institutions and since then have been teaching in the rural communities.

Preparation of the Rural Elementary School Teachers

All teacher training schools and colleges which offer the two-year certificate level course have taken part in carrying out the TURTEP's program. The outline of the program may be summarized as follows:

1. Graduates of Grade Ten are selected for the training in the two year training course.

2. The principles of community school and community development are incorporated in the curriculum. The curriculum itself includes a study of education and academic courses, agriculture and practical arts.

3. In the first year, and for two terms of three months each during the second year, the student teachers study, in residence, all courses, except student teaching. For student teaching, they practice teaching in cooperating rural elementary schools and engage in community work in those communities.

Student Teachers in the Field Work in the Village Schools

The milestone of this program is the student teaching program. Before they are sent into the fields, the student teachers attend an orientation course organized by each teacher training institution to learn the main purpose of their work and to prepare necessary instructional and community work materials to take along with them. They are divided up into groups of about 5 - 10, and each group is assigned to a certain village. They stay in the village in a "student hostel" either built free for them by the villagers or rented by the institution concerned. They pay for their own meals and run this house and its yard as a "model home" to the villagers. They usually teach between half a day and three fourths of a day to gain teaching experience and devote the rest of the day to the school and community improvement.

With regard to their practice teaching, the student teachers apply all the learning which they have acquired in the teacher training institution. They introduce and propagate new teaching methods as well as relate the teaching of various subjects to rural environment. Local resources are utilized for educational benefits. School children are taught an appreciation for love of work and good living habits. The student teachers may engage and participate in such school activities as: preparing instructional materials, improving the school agricultural program, and improving learning conditions.

In connection with the community school idea, a close relationship between the school and community is to be established. The student teachers are to make the village elementary school a community center by using school children as a means for bringing the school into a closer contact with the community and vice versa.

Work in the Rural Communities

The student teachers are expected to become leaders in the community in which they will serve. They are trained in the fields of rural health, agriculture, handicrafts, literacy campaign, recreation, fundamental education and other aspects of rural reconstruction. Therefore, besides teaching and participating in the school activities, they also engage in community development work.

Through the principle of self-help, and advised by the college supervisors and student teachers, villagers plan, organize and work out various programs concerned with the improvement of their communities. Student teachers may engage in carrying out such community activities as: improving ways of earning a livelihood; improving means of recreation; furthering rural villagers' education through literacy classes; improving the level of health, sanitation and nutrition; sharing in citizenship and civic responsibilities; and helping to set up committees for community improvement. In such a way, student teachers and rural villagers are building up appropriate democratic attitudes and leadership in rural communities.

Supervision of the Student Teachers

During their field practice, the student teachers are under the supervision of the headmasters and teachers of the village schools. The school teachers help and supervise them in class teaching. At the same time, the teacher training institution's supervisory team give them close supervision and assistance. They are, from time to time, called to attend seminars to exchange ideas about their work, i. e. , teaching difficulties and school problems. The college supervisors also supervise school teachers as well as encourage and assist them in developing their school and community. In addition, each teacher training institution organizes and conducts various inservice training courses for school teachers and headmasters, e.g. improvement of science teaching, visual education, communication of ideas, and community projects. The inservice training is aimed at providing them with more confidence either in supervising student teachers in class and/or in coping with the double role of classroom teaching and community development work.

Up-grading of the Staff and Premises

There has been a big improvement of the teacher training institutions with regard to staff and premises i.e., buildings, equipment, etc. Up-grading of the staff is carried out through various inservice training courses, conferences, seminars, workshops and further studies in higher learning institutions. They must not only be experts in the fields they teach, but the instructors must also have a real understanding and good background of rural needs and problems. The premises of the teacher training schools and colleges, in general, have been improved and expanded. The overall impact of the activities in up-grading the staff members results in improving the methods and techniques of instruction and the administration of the rural teacher education program.

Development of Curriculum and Other Improvements

Even though the curriculum is well-rounded, it needs regular adjustment. The Teacher Training Department has, through a number of ways, arranged various programs for the development and improvement of the curriculum and of teaching.

Finally, it should be noted that the rural teacher training education curriculum is directly and indirectly assisted by the Project Head Start and the Extension Project for the improvement of the rural teacher training program. Launched with UNESCO and UNICEF support in 1967 and 1969 respectively, both projects aim at improving rural pre-school and elementary education as well as teacher education. For the Project Head Start, each teacher training institution selects an appropriate village pre-school center to be a demonstration school or laboratory school while the latter project requires an elementary school to be attached to each institution as a demonstration school.

These demonstration schools are aimed to serve as both a laboratory where the student teachers may observe, learn and participate in practice teaching and a center for testing out new methods of teaching and of curriculum development and instructional materials. The achievements experienced from these have proved to be fruitful to the improvement of rural education and of teacher education.

Summary

In order to provide equal educational opportunity for all whether one lives in the city or in the rural community, the standard of rural education has to be raised. Accordingly, the Rural Teacher Education Project has been established to turn out well-trained and qualified rural elementary school teachers, who will be helping raise the standard of rural education and the living conditions of the rural people.

Since the rural teacher education program has been in operation since 1956, it has produced a satisfactory result. Not only well-trained teachers are produced, but also the staff and the premises of the teacher schools and colleges are improved and up-graded. Up-grading of the staff members is achieved through various inservice training courses and further study in the higher learning institutions. The rural school teachers also benefit from inservice training courses organized and conducted by each teacher training institution concerned.

A good part of the rural teacher training education program is that the teacher training institutions keep constantly in touch with rural schools and villages in their geographical areas. Rural schools and villages receive professional guidance, advice and services from the teacher training institutions. New techniques, skills, and ideas flow into rural schools and communities helping them to improve themselves. Instructional programs, teaching devices, and physical conditions have been improved in the cooperating rural schools. These cooperating schools have shown the way to other schools how teaching and learning can be improved. Living standards in the rural communities have also been improved.

The teacher training institutions are, then, serving as the educational centers for those participating rural schools and communities. And through the working relationships with them, the teacher training schools and colleges can learn about the needs and problems of rural schools and communities. This helps not only to improve rural education, but also to raise the living conditions of the rural population.

Bhunthin Attagara

THE OPEN AIR SESSION (VANSHALA)

Viday Bhawan G. S. Teachers College
Udaipur, Rajasthan India

The name open-air session or 'Vanshala' suggests its meaning. The concept of an open air session is not a college camp, but a college in camp and something more. The basic principle is neither new nor incomprehensible. In other countries, attempts have been made from time to time to educate children directly in the context of real life experiences rather than exclusively through textbooks in classrooms. The Decroly Method, developed by the famous Belgian educationist, is somewhat similar to the idea of the open-air session. Gandhiji's Wardha Scheme of basic education bears a close resemblance to the scheme of the open-air session in which an effort is made to bridge the gap between the theory and practice of education.

The idea of the open-air session (OAS) was first tried in Vidya Bhawan School in 1932. The experiment was adopted by the Vidya Bhawan Teachers College at its founding in 1942. Although from time to time there have been changes in the duration, venue and the types of activities, the main spirit of the OAS has remained constant. The staff council of the College has continued to review and modify the program which is evolutionary in nature. In one of the meetings, the members worked out the specific goals and objectives of the OAS from the point of view of student teachers. These are listed below:

1. To foster the attitude of relating education to community needs;
2. to develop interest in the study of the social organization and the functioning of rural community;
3. to develop an attitude of service to the community;
4. to develop the understanding that labor is the key to all community development programs; and
5. to develop an appreciation of nature and its contribution to the joy of life.

The duration of the Camp is usually one week. This is due to limitations of time, money and other programs of the ten months' course for the degree of Bachelor of Education. The selection of the site for the Camp takes some time, as it requires much thought and consideration. The foremost consideration is the educational potentialities of the place or region. It should be rich from the point of view of the study of as many subjects as possible, and at the same time it should have a natural scenic beauty. The other considerations are its easy access, sufficient water supply, level ground and nearness to a rural community. In the last three years the following places were selected on the grounds of their historical, geographical or industrial importance: (1) Jaisamand - one of the largest artificial lakes of the world, (2) Chittorgarh - a historical fort of Rajasthan, and (3) Zawar Mines - leading zinc or lead mines of India. The places offered opportunities for studying geographical, historical and industrial aspects of the sites.

The daily schedule indicates the nature of the activities of the educational camp. On arrival at the camp site on the first day, the students and staff involve themselves in the laying out the tents, cleaning of the grounds and acquaintance with the site. The daily schedule of the camp starts with a morning song by a group of students who go around the campus singing, to indicate that the time to leave the bed has come. The students assemble in the early hours with the rising sun at the common prayer ground to pray and recite devotional songs. Talks on the lives and teachings of the saints and other great men are delivered. This short assembly is followed by a common breakfast. The morning and afternoon sessions are devoted to studies, surveys, group-discussions, talks and so forth. In the evening the whole group goes to a hill top to sit in meditation for ten to fifteen minutes and observe the setting sun in silence, while a sitar or some other musical instrument is played softly in the background. This is known as "the silence hour".

The campers enjoy common breakfast, lunch and dinner. They help in the preparation and serving of food by turns. Much of the manual work is shared by the campers. After dinner, there are entertainment programs; camp fires, dramatics, one-act plays, songs and dances are arranged. The men and women from neighboring villages are also invited to watch the shows. They are encouraged to give demonstrations of their songs and dances.

The campers have to observe the camp discipline which runs on the lines of the scout camps. Everyone is expected to observe punctuality, discipline and a sense of service. The students are divided into groups and there is competition for punctuality, cleanliness and service among the groups.

The students are divided into subject groups according to their choices. There are history, geography, economics, social studies, literature, science, art and painting and home science groups. The subject groups make surveys and studies of the camp site. The literature groups collect songs, poems, folk-tales of the local people; the economics group makes a survey of their living standards and occupations; the history group studies the local history and collects data from mythologies and folk tales; the geographical group is interested in the flora and fauna or the ecology; the art and painting group is absorbed in sketching and painting the environment; the home science girls visit homes and learn from the village women knitting and embroidery work. The senior students of the Master of Education (M.Ed.) class organize a symposium on some current educational topic.

The student teachers prepare questionnaires, collect data, prepare notes on observations, discuss their observations in the group, share ideas and prepare reports to be presented before the college. On the last day of the camp the group leaders present their reports to the college students which are followed by discussion and clarification. On the last day, an exhibition of essays, sketches, paintings, maps and charts is also arranged.

Sometimes the group decides to be involved in the welfare activities of the neighboring villages, by constructing an approach road, digging a canal or a well, or by helping the village community in establishing a cooperative bank. The students are encouraged to visit the villages as often as possible, to develop sympathetic understanding of the village culture.

The outcomes of the OAS are difficult to assess, but a few outcomes may be observed through the behavioral changes of the students. These may be listed as below:

> Curriculum Enrichment - A curriculum, based on environment study, is framed and the students are directed to study geography, history, sociology and such other subjects in relation to the camp sites. The students are involved in the framing of the syllabus, questionnaires, and schedules. Such a study enriches the syllabi of their B.Ed. subjects as they can make ample use of the local material in their teaching.
>
> They also learn new devices and techniques of teaching, viz., the discussion method, preparation of reports and questionnaires, making surveys, interviewing people and organization of an educational exhibition. These go a long way in the preparation of student teachers.

Emotional Development - The camp life enriches the emotional aspect of the students' personalities. The students and staff come closer. The morning assembly and the silence hour are aimed at providing a certain amount of mental relaxation and spiritual freshness to the participants. The campfires provide an opportunity for emotional catharsis through singing, dancing, recitation, and other forms of personal and collective expression.

Social Development - The OAS is instrumental in developing social consciousness and a spirit of service. The students serve food, supply water and light, and share the management of the camp. The dignity of labor is practiced. There are a number of activities, such as games, campfires, prayers and the daily news bulletin which are managed in rotation by the students.

It is here in the camp that students recognize that the well-being of society and the individual are interdependent, that the dependance of one individual on another is a reality. The students belonging to one study group very soon develop intra-group virtues, which lead to intimacy between members, loyalty to the group, obedience to the rules and regulations of the camp and the college. Last but not least is the close contact between the students and teachers.

J. C. Joshi

A PROGRAM IN RURAL EDUCATION AND TEACHER EDUCATION

M. B. Patel College of Education, Sardar Patel University
Vallabh Nidyanagar, Gujarat, India

The M. B. Patel College of Education is concerned about the ability of its pre-service students to relate to the people and conditions of Gujarat State. In order to facilitate a relationship between the college and the rural areas around Vallabh Vidyanagar a number of innovative aspects to the teacher education program have been implemented.

A new program establishing a link with the neighboring schools involves a visit to the college by different classes from the nearby village schools. Every fortnight, a village school sends one or two classes to the college for a picnic. The college treats the visiting classes by organizing a small exhibition for them, teaching them selected lessons, showing educational films and, at times, conducting tours of the university campus. These programs are arranged quite in advance so that the required educational planning can take place.

These visits have helped to bridge the gap between the college and the neighboring village schools. The extension center of the college has played a role in solidifying this link. But the college in all its programs has incorporated the spirit of its extension efforts and the distinction between the two components of the institution, i.e., the on-campus work and the extension work, is fading. The college has also undertaken diagnostic and inservice teacher training and remedial work in these visiting schools.

Students at Patel College also prepare visual materials for these rural schools as a part of their course work. This serves as a very good incentive to the pre-service teachers as the aids they prepare are distributed as gifts to the schools.

In 1967-68, a very interesting program was experimented with. The pre-service students in their final year were inspired to spend their vacation in the village schools and they volunteered to work in the rural villages. As a result, a team of thirty outgoing student-teachers worked in the spirit of peace corps volunteers in a special summer school program organized for the pupils of one rural community. The soon-to-be teachers worked for a fortnight and the entire expenditure was borne by the school management. This program paved the way for establishing a strong community/college relationship. Instead of staying in isolation and maintaining the typical status-level separation, the Teachers' College in a true sense has become a Community College.

In the in-service program of the College of Education there are efforts to reach into the neighboring communities. Activities such as "out-post centers", "schools on wheels", and "school adoption" are a few of these efforts. We have gone out of the way and tried to touch the primary schools in this district under our program of school adoption. We have launched a movement of persuading the secondary schools to adopt the primary schools in their area and thus help them in their work. We have started distributing teaching aids as gifts to these primary schools. This is not within the purview of the in-service program but of late we are convinced that without an effort to reach all levels of the educational ladder, our program could not bear fruit.

Briefly, these efforts consist of:

1. School Adoption Program.

Objectives:

a. To help the small schools in equipping them with visual aids and other teaching materials.

b. To study the problems of small schools and suggest the remedy for same.

c. To establish closer liaison between schools and the college.

Procedure:

The college, in the beginning of the year, adopts 10 to 12 small rural schools. These schools are adopted for a period of three years. Every year the headmasters and teachers of these schools are contacted either personally or by post. Through such contacts the faculty members try to learn the requirements of teaching aids and other problems related to classroom teaching. After surveying the needs of these schools we ask our student teachers to prepare such teaching aids which can be most useful in these schools. The teaching aids, which are prepared as an integral part of the training program and are evaluated as such, are handed over as gifts to these schools. For a discussion of their problems, we invite their teachers and headmasters to college to discuss solutions and strategies with the members of the staff. Also they are encouraged to take up some experimental work on a small scale to test the remedies suggested, under the guidance of the college.

Results:

We receive letters from new schools, being opened in distant or remote rural areas of this district, asking about what assistance might be available. This seems to indicate that the practice of adopting the schools is becoming more familiar and even partially institutionalized. The members of the college staff also feel that a closer liaison is achieved by this practice.

2. Out-Post Centers.

Objectives:

a. To organize the in-service program according to the felt need of the community schools.

b. To utilize the services of experienced headmasters and senior teachers in organizing the program.

c. To carry out effectively the school improvement program.

Procedure:

Under this scheme the Center tries to make the activities of the school improvement program more need-oriented and effective. Normally one out-post center caters to the needs of about 20 to 25 schools. Out of all these schools, one headmaster works as the coordinator. Each out-post center takes up its own unique problems and works toward the resolution of these problems throughout the year. To do this the Coordinator (i.e., the headmaster-in-charge) contacts schools, included as a part of the center, and learns of these problems. In the light of the problems, workshops or colloquia are organized. The coordinator and staff from Sardar Patel University assist the participants in their deliberations and help them arrive at a strategy for their resolution. The Center has a practice of inviting these seminar leaders twice a year to review the work done and to discuss and work out the plan for the next session.

The M. B. Patel College of Education helps the Centers in the following ways:

a. Holding meetings of subject teachers and headmasters of the schools attached to the out-post centers.

b. Helping to coordinate visits by principals to the centers for discussion and evaluation.

c. Lending film, filmstrips, books and other instructional materials.

d. Helping the centers by arranging educational exhibitions.

e. Guiding them in understanding any experiments in their academic programs.

Results:

a. The schools have become independent in shouldering their own academic responsibilities.

b. The heads of the schools have started taking leadership in academic matters that affect their schools.

c. The schools have shown their willingness to bear a portion of the financial responsibility regarding printing and publications.

d. The out-post center innovations have proved a success by making the schools realize the efficiency of a decentralized technique of extension.

3. Rural Orientation Program.

Objectives:

a. To enlighten prospective teachers with the problems of rural society, where they are likely to begin teaching.

b. To acquaint the prospective teachers with the experience of some rural social workers.

c. To give to the trainees a scientific understanding of the socio-economic structure of rural life.

d. To infuse in the trainees a sense of patriotism through which they will start thinking of serving the rural communities of Gujarat.

Procedure:

Many students at M. B. Patel College of Education come from rural areas and most of them are likely to return to these areas when they become teachers. This program gives a new dimension to their training because, unless they are acquainted with the problems of rural areas in a scientific way, all the efforts of the student in educational theory and practice are bound to fail. Hence every year, a week's program is blocked out, after college hours. The participation of students is absolutely voluntary, but they join in large numbers. Persons having experience in rural sociology and rural economics are invited to give lectures and lead discussions with this group. A visit to a place of rural development is also arranged.

Results:

The students get a rare chance to hear significant leaders in rural development. They also have the satisfaction of having obtained something of direct benefit in their future career. The college, which is situated in a rural area, gets satisfaction from meeting its responsibilities to its locality.

R. S. Trivedi

TEACHERS FOR THE RURAL WORLD

Idaho State University
Pocatello, Idaho

In response to the need for preparing teachers for the sparsely populated and rural areas of one western state in the United States, the School of Education of Idaho State University established a special and innovative teacher education program. This program is a cooperative arrangement between the School of Education and a consortium of 53 local education authorities or school districts. The purpose of the program is to provide quality and relevant educational experiences for individuals who are employed and would remain in rural Idaho schools as fully certified teachers.

It is generally acknowledged by educators within the state that each district had a number of longtime residents who were outstanding teaching prospects, but who were unable to meet standards for state certification. If these people were given assistance in meeting teacher certification standards, they would probably remain in their districts and provide continuity to school staffs. In many of the rural school districts of Idaho, as many as 40 percent of all elementary teachers hold substandard or provisional teaching certificates. To avoid the facile pattern of putting trainees in college classrooms for one semester, followed by student teaching, the program combines the public school setting and teaching experience with professional coursework. Individual curriculum planning is based upon the trainee's needs for teaching in the rural world.

The curriculum for these individuals consists of over 200 programmed modules composing 12 professional courses which can be completed in the local community with off-campus supervision from the School of Education. University credit is given upon the successful completion of all programmed courses. Included were such innovations as: interaction analysis, research utilizing problem solving, concept formation study, micro-teaching, video-taped courses and seminars. Approximately ten hours per week of varied observation and participation experiences are individually organized for each candidate in the local school during this same time. Parallel to this program, master teachers were trained by the School of Education for each of the local schools to supervise the field experiences and professional study of the candidates for the second half of their professional training block.

During the initial year there were over 150 applications from which twenty-five were selected to participate in the program. All these participants completed their program and received their teacher certification licence from the State of Idaho.

Richard L. Wiley

INDIVIDUALIZING TEACHER EDUCATION

INDIVIDUALIZED TEACHER EDUCATION

In much of teacher education in recent years the necessity to train large numbers of teachers with relatively limited resources has resulted in systems of mass education characterized by teacher educators conveying various kinds of information to relatively large groups of preservice teachers. It is not that teacher educators are unaware of the problems involved in massive, inflexible programs, but circumstances have too often resulted in training which has been impersonal and a negation of the very quality sought in effective teachers: personal concern and commitment.

Few will disagree with the results of considerable research indicating that learning is greatly enhanced when attention is paid to means by which the subject matter can be made personally meaningful and relevant and adjusted to the rate and needs of the individual. Even after programs are individualized with respect to objectives, pacing and sequencing, the next and most significant step is to develop structures which induce considerable self-direction from the student.

One means of developing this latter quality is illustrated by the program at Brunel University in England. A strong element of self-study and self-evaluation is infused throughout the program by a variety of techniques. As indicated in several of the following studies, success does not come easily. Many students, due to earlier training, prefer at first a more traditional setting where the requirements for learning are prescribed by the faculty. And it is tempting for faculty to respond to this preference by insisting on what they feel is necessary for the preparation of each student. However, these impediments can be overcome with careful preparation and structural innovations, such as the Seminar at the University of Florida or the Module at Trent Polytechnic, both of which enhance individualized learning through reliance on small-group interaction.

INDIVIDUALIZING TEACHER EDUCATION PROGRAMS

School of Education, San Jose State College
San Jose, California, U. S. A.

To offer students alternative approaches to learning, many public and private schools are individualizing their instructional programs. By individualizing we mean varying student learning through pacing, objectives, and materials. College programs in teacher education cannot leave individualizing to the public and private schools which are now the leaders in the field. The colleges of teacher education must conduct programs so that teacher education candidates can participate in individualized programs rather than just hearing or reading about them. Teachers in the public and private schools will have more respect for professors who talk about individualizing and its virtues if they know the professors are also individualizing within their own classrooms.

The San Jose State College School of Education has launched a comprehensive program designed to individualize a major portion of its teacher education programs over the next five years. It has tied its preservice programs with its inservice teacher education programs through the offering of a coordinated series of courses, each of which presents a model of individualized instruction. A self-instruction laboratory is being equipped for teacher education students to build on programs already developed, and an Institute for Individualizing Instruction is being created. A new state credentialing act has opened up to innovation the instructional programs in teacher education, and a new proposal for state accreditation of teacher education programs will emphasize competency-based teacher education programs. Individualized programs must be developed to meet the new credentialing and accreditation standards.

Individualizing Teacher Education Courses

One course, taught by the author, has now been completely individualized. It is a socio-psychological foundation of education course called "The Learner in the Elementary School". Each student plans individualized programs with the instructor and signs a study schedule (a "contract") for his semester's work. He selects from five to seven or more instructional modules to master. Two of these are required, viz. , "Theories of Learning and Motivation" and "Assessment Techniques and Evaluation in Elementary Education". "Child Growth and Development" is required for those who have not taken such a course or who show lack of mastery in that area on the diagnostic test. Students may prepare their own modules on appropriate topics or request one made to their order by the instructor. The instructional modules are patterned after those of the California Teacher Development Project.

A learning module consists of printed materials which provide an introduction to the topic, a behavioral objective or objectives, three or more options whose activities are designed to facilitate mastery of the objective or objectives, selected additional resource materials and a performance criterion test. Different learning styles are provided for through variations in the learning option; e.g., viewing of a film, videotape or slide/tape presentation, study of research findings, or guided visits to an appropriate classroom or classrooms. Participation in tutoring, small or large group sessions is voluntary and based on individual need. Students must specify where they will be during class hours to satisfy college requirements. There are no examinations in the course other than the criterion performance tests.

On post-course evaluations, students show a strong positive attitude toward the course and the way it is conducted. There are, however, many questions about procedures at first. Students want to know particularly how their work is to be graded, what the examinations are like, and what happens if they cannot meet their contracts. Later they express strong preference for a course which is designed as a model for their own teaching and in which they do work harder but on topics of great interest to them. No significant differences in learning outcomes have been found between students in the individualized classes and the more traditional classes in this course.

The Self-Instruction Laboratory

A Self-instruction Laboratory is being developed to facilitate student learning. Students may sign for independent study, tutoring, and/or small group or large group instruction. Several teacher education courses will be offered this way with each participating professor spending part of his time on call in the Laboratory. He will be assisted by graduate interns in instructional technology. A part-time librarian will manage the educational materials portion of the Laboratory. This area will include a Learning Center and learning activity units bank. Preservice and inservice teachers may go to the Educational Materials Center to study or check out learning materials. An on-demand videotape playback system will be established.

Students checking into the Laboratory, which is to be open from 8:00 a.m. to 10:00 p.m. daily, will select their learning modules for study, go to an open study station, and perform whatever activities are called for. They may read, view filmstrips, listen to cassette recordings, or prepare project materials. Self-tests will be taken as well as module tests which will be turned in to the Laboratory assistants for immediate scoring. They may also sign for tutoring sessions, study groups, or field trips. Careful studies will be made of the achievements and attitudes of students in the individualized and in the group-paced courses. It is planned that any professor may direct his students to the Laboratory if he has prepared one or more learning modules for use there.

The Institute for Individualizing Instruction

To facilitate development of individualized instruction programs at the College and in schools and other agencies within the College's region, an Institute for Individualizing Instruction is being organized. Workshops on individualizing instruction now being offered will be offered through the Institute and new ones designed to meet local and state needs will be planned. Conferences and seminars for selected groups will be conducted.

As can be observed, many programs and projects are underway to facilitate individualization of learning and to present models of individualization for students and faculties of this one California State College and its region of service.

W. Warren Kallenbach

THE FLORIDA EXPERIMENTAL PROGRAM IN ELEMENTARY EDUCATION

College of Education, University of Florida
Gainesville, Florida, U. S. A.

Most teacher education programs change slowly. As with every other aspect of our society, in teacher education there is a "cultural lag" between theory and practical application. Presently, however, members of the faculty of the College of Education at the University of Florida are attempting to accelerate change and narrow the gap between theory and practice in teacher education. The faculty has implemented an experimental program in the training of elementary school teachers. Instead of gradually modifying an existing program, the staff has taken a current theoretical position and developed an operational program on the basis of that model. Four major principles underly the organization of the Florida program. These principles are that one learns best when (1) learning is made personally meaningful and relevant; (2) learning is adjusted to the rate and need of the individual; (3) there is a great deal of self direction; and (4) there is a close relationship between theory and practice. The program was organized with these principles in mind and the resulting structure has three parts.

Seminar

The seminar is considered to be the heart of the program. There are three seminars currently in operation consisting of one faculty member and thirty students each. As the students enter the program, they are assigned to one of the three seminars and the same thirty students and seminar leader work together for the balance of time the students remain in the program. As a student leaves the program, she or he is replaced by a new student entering the college for the first time.

Since a thirty-to-one ratio is too great to accomplish the purposes of the seminar, the group of thirty is again divided into two groups of fifteen and the seminar leader meets two hours a week with each group of fifteen students. However, to maintain group cohesiveness, all thirty students meet together for the first few minutes of one of the seminar sessions and get together formally and informally several times during a term. Furthermore, at the end of a term the composition of the groups of fifteen students is reconstituted to avoid the development of two distinct sub-groups.

The seminar serves many important functions. It is the place where the students' educational experience becomes personal and humanistic through interaction with a faculty member who is easily approachable and obviously committed to them, and through interaction with twenty-nine other friendly cohorts who share their joys, fears, successes and failures. The seminar is also the place where, through discussion and exploration, the students discover the personal meaning of the didactic and experiential aspects of the program, and begin to realize the meaning of their entire educational experience. It is the place where they begin to see themselves more clearly as teacher and person, where they receive personal counseling and guidance and where they plan for the future. In the seminar the student is engaged in a dynamic personal relationship with other human beings and, if he or she remains open to new experiences, their humanness expands and matures.

Another function of the seminar is the maintenance of individual records on each student. These are progress records which include all of the evaluations that have been made on the students and diaries of all the activities that they have engaged in. The diaries are maintained by the students and are filed with the seminar records quarterly. These records then present a continual picture of the staff's evaluation of the student, the student's growth, and his or her reaction to the experience. A final aspect of the seminar is referred to as the "Newsletter." This is a dittoed note that is distributed to the students each week in the seminar. It includes an announcement of the forthcoming program activities as well as a calendar of university and community activities of special interest to the students.

The Substantive Panel

The program directors, assuming that large classrooms with large numbers of students being lectured to are not conducive to learning, have devised a model in the Florida program which is called the Substantive Panel. It is made up of faculty members of varying specialties, such as foundations of education, math, curriculum, reading and other areas in which elementary teachers need competence.

Students are not expected to complete courses in the program, but to develop competence in areas corresponding to the specialties of the panel members. Consequently, when they enter the program they are given "competency sheets" which list the competencies they will be expected to develop during their stay in the program. After that they are on their own in terms of how quickly or how slowly they will be moving through the program and developing their competencies. They receive guidance and counseling and help with program planning from their seminar leader, but no one, in the usual sense, tells them where to go or what to do. Students make their own decisions about how to spend their time and which aspects of the program they will take advantage of.

The panel members serve more a consulting role than a traditional teaching one. Each panel member does schedule one hour of large group presentations once a week, but most of his time is taken up by small groups and one to one interactions as requested by the students.

Students are required to select a minimum of three panel areas in which to work each quarter, but which three they choose and how much they do in each area is completely left to them. They can choose to devote most of their time to one area, and only a little to the other two, or equal time to all three, or any other combination they wish. They are graded each quarter, for administrative purposes, in terms of the quality rather than quantity of what they have done. Each student works out how he plans to develop a competency within a given area with the pertinent staff member and determines for himself how long he will take to do so. It is not necessary for the student to attend any lectures or small group discussions so long as she or he can eventually demonstrate their competence to the program staff.

Field Experience

Students immediately become engaged in some aspect of the teaching process when they enter the program. In consultation with their seminar leader who considers their previous experience, level of maturity and other factors, the students elect one of three levels of experience:

Level l: The first level consists of a combination of classroom observation and tutoring. With regards to observation the student observes various classrooms in the area until the student and his advisor decide that the student has benefited as much as possible from the experience. This activity lasts approximately from four to ten weeks and is engaged in for one hour a week. Concurrently with or subsequent to the observations, the student tutors a single student from one of the local schools. He does this for one hour a week for a minimum of ten weeks.

Level 11: The second level is designated as teacher assistant, during which the student simply assists the teacher in any way she or he can. This may involve such things as record keeping, individual work with children, and small group work.

Level 111: The third level is designated teacher associate. This is a progression from level two whereby the student accepts more responsibility until he or she finally takes a class on a full time basis.

Students receive two major evaluations, one at the mid-point and the other at the end of the program. This is done by a panel of staff members including one of the program co-directors, the student's seminar leader and one substantive panel member. This group will look at all of the information available on a student to assess his progress.

Formal evaluation of the Florida program is in progress by a research committee. However, the resulting data are not yet available, so any impressions of the program at this time are purely subjective. But some advantages seem clear. For one thing there is a better opportunity to assess non-academic factors because at least one member of the staff gets to know the students on a very personal basis, and there is more socializing than is usually the case. Secondly, the students report that they are very excited about the opportunity to immediately become involved in some kind of teaching activity. This doesn't normally happen in typical programs until some time later.

Furthermore, logically, at least, the fact that the students are having earlier experience should give more meaning to their substantive panel work, since experience hopefully causes one to have more relevant questions to ask than if one is simply sitting and abstractly discussing the significance of an area like human growth and development. Finally, the program does deal to some degree with the common student chant of today that no one cares. All of this for the moment is purely speculative, of course. The program will need and is generating hard data before it can be adequately evaluated.

Donald L. Avila
Arthur W. Combs
Waldemar Olson
Athol Packer
Joseph Shea

INNOVATIVE STRUCTURES IN ENGLISH TEACHER EDUCATION

Trinity and All Saints' Colleges
Horsforth, England, United Kingdom

Trinity and All Saints' Colleges provide courses for approximately 900 students who wish to undertake professional preparation for teaching. The overall course of education for teaching which the Colleges offer has two outcomes: one at the end of the third year of study leading to the certificate of education and to state recognition as a qualified teacher; the second after four years of study leading to the degree of bachelor of education with honors of the University of Leeds. The course of study for all students is identical, those asking the degree course continuing for an additional year of study.

This overall course consists of:

i. Professional Studies
ii. Professional Exercises
iii. College Studies
iv. An Elective Course Area

In each of these areas the emphasis is on the student's individual initiative (rather than on institutional patterns) and therefore on personal planning, on making decisions, on executing these plans and on evaluating these efforts. Such an emphasis places a considerable strain on many students who, for reasons of temperament, lack of full professional commitment, or ingrained habits of intellectual conformity, would prefer to be asked to reproduce a definite institutional stereotype. In this situation it is essential for close relationships to be developed between staff and students on a tutorial and personal basis.

Professional Studies

Over the four years of the course, professional studies is divided into two parts. The first of these, general and pre-professional studies, covers the first eighteeen months of the course and could best be described as general anthropology with an emphasis on such matters as the study of life cycles of development. It serves as a basis for subsequent and more professional study and also as an aspect of general liberal education. It leads to a Part I examination of an arduous kind, in which the emphasis (through a variety of instruments) is on guidance and on the identification of individual strengths and weaknesses as much as on formal evaluation. Professional studies follows for the rest of the course and is concerned with four broad areas:

i. Curricular studies, including the planning of work over varying lengths of time, from one classroom period to a full course of study in school, and the production and analysis of learning materials;

ii. Study of social situations and relationships including the organization and "management" of groups of children in class levels appropriate to different ages;

iii. Analysis of the teacher's behavior in relation to the curriculum and to social situations; and,

iv. Study of the ethos of teaching.

The conduct of professional studies in Trinity and All Saints' Colleges can best be described as involving the utilization of a great variety of sources of information ultimately relevant to the business of planning and conducting the education of children. During pre-professional exercises, therefore, a considerable amount of time is devoted to search and retrieval techniques and to the skills of personal systematization of information. There is an emphasis on analysis and a search for conceptual clarity. In professional studies proper, courses on such subjects as Learning Theory are not offered, but the insights of such studies are utilized where appropriate, the test being a pragmatic one. A course of this kind is a matter of constant creation and re-creation; but the Colleges hope it is and will be intellectually demanding. They see it, in the overall development of students, as a necessary counterpoise to the more academic studies described below. Lastly, they see it as involving full student participation so that much of the material being discussed is the product of the students' own work.

PROFESSIONAL EXERCISES

Professional exercises, at the moment, take place three times in each of the first three years of the course. These are conducted in cooperating schools but are supplemented by ancillary exercises which take place in the Colleges. Each set of professional exercises has a particular form and developmental purpose within the overall course. The first involves an introduction to (and a real experience of) the life of the school as an institution; the second experience of working in association with serving teachers in the planning and conduct of short term projects normally involving flexible timetabling and teaching arrangements; the third (lasting for 12 weeks) the gradual assumption of a personal responsibility for a full teaching week.

It may be noted that in all of these arrangements the Colleges are anxious to maintain the general principles of individual responsibility on the part of the students and to encourage personal decision-making. The system places a considerable burden on the cooperating LEA schools in that they host as many as 120 pre-service teachers. Serving teachers in varying schools have already been appointed as tutors and these collaborate with College staff in supporting and extending the initiative of students. The Colleges have been active over the five years of their existence in endeavoring to establish to close relationship with cooperating schools and devising what might be called a compact of mutual assistance.

Collegial Studies

These studies include basic courses in English and mathematics, lasting in each case for eighteen months and mandatory for all students; ancillary courses in the Creative Arts, of which the majority of students may well take one, and some students (particularly in view of their desire to teach younger age-groups) may take two; and, a range of voluntary courses or conferences, often of short duration, provided outside the normal timetable, of contemporary interest or of some specialist professional nature. It would not be abnormal for students to participate in the teaching of some of these courses.

Elective Course Areas

Each student selects a course of study in the standard disciplines which he will continue for either three or four years. As with the professional studies, there is an emphasis on personal capacity, decision and choice. The elective course area permits students to have the experience of study in depth within a structured discipline and in this sense is seen as an intellectual balance with the more pragmatic nature of professional studies. The standard of achievement aimed at is that of a normal joint honors degree of the University.

College Organization

The organization which carries the type of course described above is an unusual one. There is no Department of Education in the Colleges. Professional studies in its wider sense is assumed to be the responsibility of the staff as a whole, each one of whom has in addition his or her own specialist area of competence. Planning of professional courses is undertaken by a professional board, on which both students and staff are represented. In addition to the offering of general lectures or seminars, a great deal of bibliographic assistance and the preparation of materials, the Colleges offer students in professional courses a tutorial system of a group oriented nature. The aim of the tutorial system is not to provide another form of direct teaching but to encourage students in small self-created groups to plan work together and to identify areas in which difficulties have arisen. The function of the "tutor", therefore, is to act as a support for an on-going working party, and to be prepared to help with individual or group problems.

A. M. Kean

THE MODULE: A NEW PATTERN OF TEACHER EDUCATION

Trent Polytechnic
Nottingham, United Kingdom

In September, 1970, the Trent Polytechnic Department of Education, Nottingham, England, set up a Module for the preservice training of primary and secondary school teachers. One critical feature of the Module is its size: it must be large enough to allow the development of a variety of groupings, but not so large that individuals lose their identity. It also requires a permanent base. The 1970 intake of 140 (18 years olds and mature age students) formed two modules each of 70 students and 6 tutors; the 1971 intake has been divided into 4 modules of approximately 40 students and 3 tutors each. Students in their first week chose their personal tutor, who himself has volunteered to work in the Module. Without a set timetable, curriculum or syllabus, students and tutors planned their own work and thus the educational dialogue began, as it should, from first principles. The majority went into school immediately and school groups were thus formed in the first week.

Tutors and school groups chose one of the ten primary and two secondary schools which had volunteered to work with the Module, and quickly became committed to the school and the children. The school group and its tutor thus established a stable relationship which lasted throughout the year. Students were eased into the classroom with only a half dozen children for perhaps a half day, gradually building up to larger numbers for longer periods of time (up to two days a week) as they, their tutor and teacher felt they were ready for it. From the beginning the student was an active member of the team, initiating programs of work, devising activities and evaluating results.

Students were not at first obliged to opt for school; they could work with children or adolescents in other educational and social institutions. Community work has to date been slow to develop but students have been involved with social and community workers. They are beginning to appreciate that social education is based on identification of specific areas such as poverty, deprivation, linguistic disability; and they are taking appropriate action, rather than practicing a generalized liberalistic philanthropy.

Weekly meetings of tutors, teachers and students were held in school and college to discuss progress and objectify problems. This daytime release for inservice education allowed teachers to join in creative workshops, prepare material for the classroom, study a specialist interest in seminars, or undertake research for a diploma or degree. Teachers also took part in the initial selection of students for college.

Clearly, traditional methods of assessment are inappropriate in this situation; evaluation of the whole and its constituent parts must be continuous. The Module, the group and the individual student build up "Profiles". For example, the student Profile is written up continuously by him and moderated by the group (tutor, teachers and students). It contains a record and evaluation of his work; comment on his skill in initiating activities in different size, age and type of group; his research work, studies of children's work, exhibitions, creative activities, work in the community; his experience with immigrants, exceptional children, handicapped people; the range and quality of his reading; of his pedagogical and counselling skills; and his facility with audio-visual media.

The change of role for the teacher is the biggest stumbling block. It is not easy for the teacher of long experience to be put in a learning situation; to modify his well-tried routines; to be questioned constantly on his techniques on a basis of equality; to refrain from falling back on a dominant attitude to students when the tutor is not present or, alternatively, from siding with students against the tutor. Benign and committed but authoritarian Heads are, similarly, unable to change overnight. The students are still too often under the direction of the class teacher, accepting his answers to stress situations and thus limiting the range of their possibilities. To counteract this, it is crucial for the Module that open and fundamental dialogue takes place on these critical issues.

Students and tutors have suffered from university demands for conventional work to conform with syllabuses and assessment requirements. In a situation designed to encourage risk-taking (with security coming from close personal relationships in college and school), tutors who were themselves often insecure have tended to plan for students and lay on traditional courses with which they have had prior success but which are often unrelated to student needs. Students accustomed to structure were introduced too quickly to open choice situations without enough small group discussion about their fears and problems, personal and academic, financial and domestic. The Head of Department who initiated the experiment was unable to participate as he wished, owing to the pressure of other work, and when things seemed to be going wrong misguidedly intervened on occasions in contravention of the principles of the Module.

Yet it works! The children are benefiting from increased interest and attention from adults. The students have developed confidence and initiative without fear of assessment or failure in a friendly atmosphere that allows them to make mistakes which are seen as creative. For most, motivation has increased, and many are behaving like teachers already; they feel no need to recruit the teacher against the tutor or vice versa. They are more honest and mature in their assessment of themselves and others than is normal in first year students. They are more committed, have had more first-hand experience, have reflected more on it, are more inclined to experiment and have developed sounder criteria. They have recognized the need to observe children developing rather than study child development in a theoretical vacuum. They are learning executive skills and demanding the theory to underpin them when it is relevant. They are beginnning to ask the right questions: not, "How do you teach reading?" but, "How does the individual child learn to read?".

The tutor has an opportunity to teach in school; he too becomes committed to the school, no longer a guest but a colleague. He cannot give glib answers to students' questions, because he too has to face classroom realities.

With the expansion of the Module throughout the College years and into the teaching community, our work will no longer be discrete and apparently isolated from the world of the teacher, the children and their parents. Through the inservice education of teachers released by our students, and by means of feed-back from former students, the learning system which we represent will have become relevant, democratic and liberating.

Graham Owens

MONITORING THE DEVELOPMENT OF A TEACHER-TRAINING COURSE

School of Education, Brunel University
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When Brunel University established its department of education in 1966, it seemed only sensible that a department with a strong research orientation, and which was to include an important national research group, should devote some of its resources to self-study. One of its efforts was to be a one-year course of teacher training, designed to prepare graduates in the natural and social sciences for careers as teachers in secondary schools. The decision was taken to monitor the development of this course as effectively as possible and to guide its evolution with an appropriate program of research.

A number of relevant topics were selected for study, and by developing appropriate techniques for measurement and analysis, and by bringing the resulting data into relation, an attempt is now being made to generate information which will contribute usefully to decisions about the gradual evolution of the course. In brief outline, the several facets of the study are as follows:

A. Students' Evaluation of the Course

By completing appropriate questionnaires at suitable intervals, students identify those parts of the course which have and have not engaged their interest, and give their opinions on such matters as the order in which course components should follow one another. Information is sought about the adequacy of the help received from established teachers in the schools and about possible conflicts between advice received from the schools and from university staff. They are asked to specify matters on which they do not feel they are receiving adequate help and guidance, whether these are connected with course work, or more personal matters. Since much of the information elicited reflects on the competence of identifiable members of university staff, all questionnaires are completed anonymously.

Information from the questionnaire has already had a considerable impact on course planning and on the way in which individual lecturers design and present their teaching. We have now had enough experience to realize that students' criticisms are not necessarily consistent from one year to another, and that measures designed to meet the criticisms advanced by one year's entry, may be followed by suggestions from the next entry which would re-establish the previous status quo. We suspect that our use of the questionnaires establishes an ethos within which students are more critical than they otherwise might be. Nevertheless, if interpreted with proper judgement, the data obtained do seem to justify the difficulties involved.

B. Staff Evaluation of the Intellectual and Personality Characteristics of the Students.

The main object of this part of the work is to see how much weight can safely (and usefully) be given to assessments of students' characteristics made by staff on a relatively intuitive basis, i.e. without the use of formal tests and other types of protocol. Each member of staff has from time to time been asked to rate each of the students he has some interaction with for eleven carefully specified qualities, including drive, reaction to criticism, relations with pupils when teaching and fertility of ideas.

Analysis of data so far collected has revealed substantial disagreement among the raters on most qualities assessed. However, reliabilities can be raised to satisfactory levels by pooling ratings from all the staff concerned. Work is now in hand to see whether such averaged ratings relate to qualities which can be accurately assessed with the help of properly standardized test procedures, and whether they can be used to predict classroom behavior and performance in university examinations and other assessment procedures.

C. The Development of Practical Teaching Skills in Students.

As students have to demonstrate that they can teach effectively in the classroom before they are awarded their teachers' certificate, a reasonably objective procedure is being developed for making the necessary assessments. Teaching competence is assessed under eight main headings using a special structure and content of the lesson being assessed, the handling of pupils, the use of visuals and demonstrations, and the supervision of practical work in laboratories. Under each heading, the examiner is given an extensive list of examples of the kinds of questions he needs to ask himself in reaching his decision about the student's competence, and on the basis of his answers to those questions, he decides what mark to award. It is already apparent that the use of the protocol reduces between-examiner disagreements during the assessment process and that it improves the resulting dispersions of marks awarded. Now that quite a lot is known about the technical characteristics of the protocol, regarded as a measuring instrument, we are proposing to start to use it as a means of monitoring the way in which teaching skills develop during the course.

D. The Characteristics of the System of Assessment for Pre-Service Teacher Training.

A certificate is awarded on the bases of marks gained in a mixed program on continuous assessment procedures and conventional examinations. The technical characteristics of all the procedures involved in this program (such as the reliabilities of assessments, etc.) are monitored each year and modifications made to eliminate unsatisfactory elements. From the study of the intercorrelations of all the elements in the program and of the variances of the relevant marks, information is obtained for guiding decisions about the way in which the set of marks obtained over the whole range of assessments can best be combined to govern the award of the certificate. One of the most interesting points to emerge so far is the high positive correlation between good teaching ability and good academic ability.

On admission to the department, all students take properly designed paper-and-pencil tests providing scores for high-level inductive reasoning ability, intellectual speed and accuracy, stress-gain, extraversion and neuroticism. The resulting scores are being used to build up a picture of the kind of student who enters the department and to see whether particular characteristics of intellect and personality are associated with relative success or failure in the various course components. Supplementary studies, dealing for example with sociological characteristics, are carried out from time to time by students doing research leading to advanced degrees in the department.

W. D. Furneaux

INTEGRATED TEACHER EDUCATION

INTEGRATED TEACHER EDUCATION

It is widely recognized that a majority of preservice teachers continue to receive their initial training experiences in programs that consist of a series of discrete and disjointed processes. While there is rather wide acceptance of the teacher preparation triad of general studies, professional studies and field experiences, too often there is little or no connection between the learning of the subject, the methodology of teaching the subject and actual subject matter teaching. Further, what occurs in one professional course too often is unrelated to or duplicates that which occurs in other courses.

To overcome the fragmented nature of teacher education programs, there have been several significant efforts to restructure or reorganize the process of teacher preparation. Some supporters call for the integration of colleges into the apparently more demanding and certainly more diversified university programs which would diminish the fragmentary nature of teacher education by relying on academic faculties to undertake all three dimensions of the triad. Another tact calls for teacher education to be done in the schools with combinations of preservice students, university faculty and practitioners, an approach which is also evident in the case studies in the field centered teacher education section. This would provide integration through relying upon a highly practical or experiential structure to accomplish needed manpower development. A third approach, using the training college as its focus and more adequately discussed in the section describing performance based or competency based teacher education projects, seeks integration through a systems approach to teacher education. Such an approach requires extensive development of a performance model with explicit statements of achievable outcomes, behavioral objectives, specification of alternative approaches to these ends and the characteristics of all inputs to the model.

Variations of these approaches are represented in the case studies to the extent that, in one, preservice teachers, certified teachers working for master's degrees and doctoral students relate to one another through a series of cooperative writing, teaching and evaluation efforts - thus achieving an integration of purpose and personnel. Another focuses on the restructuring of courses and staff-time allocations to enable faculty and students to cooperatively, and collectively, engage in the business of becoming teachers. A third suggests a thematic or problematic approach as a way of integrating the teacher education program.

AN EXPERIMENTAL INTEGRATION OF THREE LEVELS OF TEACHER-EDUCATION PROGRAMS

New Mexico State University
Las Cruces, New Mexico, U.S.A.

The New Mexico State University College of Education has initiated the experimental integration of three levels of professional education programs designed to establish relationships among groups at four levels of education: public school age children, college students in their first education courses, beginning graduate students, and doctoral students in curriculum and instruction courses. Goals of the experiment include the encouragement of a positive attitude of the beginning education student toward education, an experience vehicle guaranteeing relevancy for curriculum laboratory work for the beginning graduate student, and an experience in the real world of college teaching for the advanced graduate student.

The rationale for the experiment rose mainly from the tenets of experimentalism and the belief that communication gaps exist between and among peoples closely involved with education at different levels. Communication opportunities have always existed for instructor and student, but often this communication is limited to talking about teaching. More and earlier experiences with learners, as urged regularly in the literature of teacher preparation, undergirds a basic premise of the program; undergraduate students need more communication opportunities with learners in grades K-12 and they need more contact with practicing teachers. Practicing teachers, in turn, need more communication opportunities both with those preparing to teach, and with doctoral students who are seeking broader learning and/or responsibilities. The experimental program is designed to help bridge these communication gaps.

The typical program during one semester involves the interaction of students from courses at all three levels, with each student receiving instruction and practical experience at that level of education with which he is most closely concerned. The beginning education students are provided one-to-one contact with public school age learners by teaching and evaluating self-constructed mini-lessons. They engage in ten hours of teacher aide work in the schools and relate these experiences to their study of the historical development of the schools, current problems, contemporary issues and the innovative software and hardware available to teachers today.

The practicing teachers, usually master's degree candidates, evaluate the teaching plans and mini-lessons designed by the beginning students and offer written suggestions and encouragement to the authors. The beginning student is encouraged to respond after teaching the lesson. These responses often take the forms of gratitude or rebuttal and provide the practicing teachers with real curriculum issues for analysis and discussion.

Small sections (15 to 30) of the beginning students meet regularly once a week with a doctoral student to examine, evaluate, and plan educational activities. These doctoral students, in turn, participate in seminars regularly with their professor to develop and plan a variety of instructional strategies which they then test and evaluate in their laboratory sessions with the beginning student. Doctoral students who are inexperienced with large group instruction techniques are provided an opportunity to practice strategies in the regular lecture section held for all beginning students.

Interaction between the practicing teachers and the doctoral students is guaranteed through their cooperative production of curriculum units to be taught in the real world of teacher education, specifically in the beginning education student sections. Each doctoral student serves as the chairman of a curriculum committee composed of three or four members from the practicing teachers' group. Each committee has complete freedom in selection of content, materials and suggested procedures to be incorporated into their curriculum unit. From the start, they are aware that their unit will be taught to one of the sections of the beginning students who will in turn evaluate the unit. The ensuing discussion of what beginning education students should learn and how the experiences should be packaged and presented often exposes the philosophical and psychological foundations of curriculum building. Upon completion of the unit, an analysis of the group dynamics involved in the curriculum building process clarifies the various roles possible in curriculum development activity.

A PERT (Program Evaluation and Review Technique) chart is developed to ease the management problems created by the complexity and interdependence of the inter-class involvement. The chart illustrates the time line activities, responsibilities and critical paths for each of the classes involved and greatly facilitates the integration effort.

Evaluations are commonly obtained each semester from each of the three levels in both the affective and cognitive domains. The PERT chart aids the evaluation of management activities. Attainment toward the goal of improving the attitude of beginning education students toward education is evaluated by pre- and post-semeter completions of the Hosford-Dowell Educational Attitude Scale (HSEA Scale). [1] Early findings indicate that changes in expressed attitudes toward education are, indeed, positive. Results of informal measures devised by the doctoral students clearly indicate that the experiences seen to be of most value to the beginning education students are those which deal with children in the schools and those which deal directly with teaching methods and materials.

Similar anonymous and informal evaluations by the beginning graduate student indicate they clearly value the opportunities to build a curriculum unit to be used in a regular college class, to serve as a responsible member of a curriculum committee, and to evaluate the mini-lessons and reactions of the beginning students. They recommend provision for a session with the beginning students on a personal one-to-one basis regarding the mini-lessons.

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[1] A copy of this 13-item Likert-type response scale can be obtained by writing the author. Validity and reliability data are also available.

The doctoral students unanimously value their college teaching opportunities with the small groups of beginning students, their role as chairmen of the curriculum committees, and their own seminar which becomes an opportunity for synthesizing instructional-curriculum theory in view of their practical experiences with others earnestly involved with education processes at different levels.

One problem seems continuous. The establishment and maintenance of new channels of communication between so many different groups is difficult. Typical university requirements and deadlines still exist and must be met. More time for meetings, discussion and debate are required of all groups because of the interdependence of so much of the work and the need for cooperative action. Both of the graduate groups identified such difficulties as causes of some inconvenience or misunderstandings. All, however, added parenthetically, that these kinds of difficulties should in no way inhibit the continuation of the program to integrate activities of those involved in education at any and all levels. In short, all groups evaluate the experiment as successfully achieving its goals and recommend that all curriculum changes in teacher preparation programs be made with the rationale, goals and findings of this experiment well in mind.

Philip L. Hosford

AN INTEGRATED APPROACH TO THE PREPARATION OF TEACHERS

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The Diploma in Education at Monash, as at most other Australian universities, is a qualification awarded to graduates at the completion of one further year of full-time study in the Faculty of Education. It is designed principally for prospective teachers and combines academic studies of the foundations of education with methods and practice of teaching specific school subjects. Traditionally these sections of the course have been presented as several subjects taught and examined independently of each other. The subject names at Monash are education in society, educational psychology, history of educational thought, principles of teaching, methods and practice of teaching.

The innovative program piloted by a small staff team in 1970 was arranged in such a way as to facilitate integration of subject matter and an interdisciplinary approach to the study of education and teaching. Organizationally, this "alternative course", now about to begin its third year, is based on two major innovations. One of these concerns the deployment of staff, the other the scheduling of time to the various parts of the course. In the first place, it was suggested that there may be some advantage in dividing up the now very large student body (over 500 full-time Diploma students) into smaller units each associated with a team of lecturing staff, sizes being chosen to permit full coverage of subject interests within each staff team. Such a procedure would contrast with allocating the total available staff to the total student body to teach the various subjects, leaving largely to chance the number of different staff-student contacts and their frequency. The second organizational departure was to suggest that the normally fairly rigid time-table be replaced by one that might permit different emphases at different times of the year. It was thought that this would reduce the diversity of demands placed on students at any one time. An example of this is the heavy and almost exclusive emphasis now given to teaching methods prior to the students' first period of teaching practice in schools. This then became the model for the innovation: a small team of staff members accepting the responsibility for the total Diploma in Education program of a correspondingly small group of students and following a time-table that would allow different weightings and different concentrations of content as the year proceeded.

To try out the model, a pilot course was set up at the beginning of the 1970 academic year. There were 85 students, some from humanities and some from the sciences, and six staff members were given their major teaching commitment with this group. About half a dozen others had duties that associated them with the group for part of their time.

The pattern worked out in the first year has survived in essentials, though the number of students has now grown to 135. The first part of the year (March) is chiefly concerned with a thorough preparation for school experience. There are workshop sessions in which students are brought into direct contact with curriculum materials, teaching aids and procedures. Learning sequences are developed and techniques are tried out in micro-teaching situations. An educational psychologist works closely during this period with methods staff and students.

Following a period of supervised teaching practice in the schools (April), the program focusses on an examination of some of the important and topical issues in education. Psychology, sociology, history and philosophy have their contribution to make here, but the problems dealt with are essentially those of education rather than of the separate foundation disciplines.

There is a further period of teaching practice and after this students spend six weeks in full-time study of a topic of their own choice, drawing on expertise derived from their first degree if they desire, and tackling, under the guidance of members of staff, either a specific problem in depth, or a more general problem with breadth. One group of students in 1971 analyzed data gathered from several thousand high school students thereby carrying out a Coleman-type study of Australian adolescents. Others assisted the Australian Science Education Project in developing curriculum materials. Some made a special study of the problems of inner-city schools and others traced the influence of the Progressive Movement in Australian schools. These are just a few examples of this feature of the course which has been voted by staff and students as one of the most vital and valuable.

Evaluation

This outline of the program cannot convey an accurate impression of its operation in practice when a number of limitations must be taken into account and constraints accepted.

For example, though the members of staff associated with the group are participating by agreement, they are not, in most cases, teaching exclusively within the group. This means that there is a greater number of teaching personnel involved than may be thought to be ideal. That some staff too are only employed part-time by the Faculty makes the building up of staff-student relations more difficult than foreseen. Again, Faculties of Education and Teachers' Colleges are currently facing problems in placing their students in schools for teaching practice. It was not thought wise to add to these problems by requesting different practice arrangements, nor has it been possible so far to involve supervising teachers as fully as would be liked in the teacher preparation program.

But having regard for the realities of the situation, what do those teaching the new program hope to achieve that might not be achieved equally well within the traditional Diploma in Education framework? To begin an answer to this question, it will be helpful to look at criticisms of Diploma programs in Australia. In December 1967, the National Union of Australian University Students held a three-day seminar at Melbourne University to discuss the preparation of graduate teachers. The report that followed this seminar listed a number of faults alleged to be common to all seven Diploma courses discussed. Courses were too shallow, the report said. They attempted to cover too much in the time. They were pitched at first year undergraduate standard, little attempt being made to vary the offering to suit the disparate backgrounds of students. Courses, being basically conservative, did not encourage original thinking nor promote a continuing interest in the study of education. Staff, it was claimed, seldom employed exemplary teaching methods, and there was too little small-group work in relation to time spent at lectures. Practice teaching was found inadequate in several respects and methods courses were unsuccessful in establishing ties between what is taught and how it is taught. Philosophy, sociology, and pyschology were treated as separate courses in each discipline with little applicability to education. The Diploma year, coming for most young people after a lengthy period as a full-time student and preceding life as a full-time teacher/citizen, was seen as existing in a vacuum with no attempt being made to ease the transition from one state to the other.

The Alternative Course with its different organizational premises, it was thought, would permit variations not easy or possible so long as change was virtually restricted to taking place within individual subjects. Organizationally, the new model has so far been applied with considerable success. First, it has been proved possible for a small but diverse group of staff members to achieve agreement on objectives and on plans of action, only seldom encountering the restriction of subject boundaries. Secondly, very considerable flexibility of time-table has been found practicable. These two features of team work and flexibility are helping towards the realization of those advantages projected when the scheme was first put up for approval.

J. A. Fyfield

DUAL INTEGRATION IN TEACHER PREPARATION PROGRAMS

University of Sussex, School of Education
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There are two most urgent problems in devising graduate courses at universities for intending teachers. The first is the fact that the staff of the Education Department tend to have almost no intellectual contact (and all too little academic standing) with the main university faculty teaching subjects such as psychology, sociology and philosophy to undergraduates and graduates. The second problem is the colonial relationship which all too often exists between college or university departments of education and the schools in which their students do their teaching practice.

The University of Sussex, which is a new university, has taken the view that the prime function of the graduate certificate course is to provide a center for experimentation in the education of teachers, and it has thus tried to tackle both these problems. As there are no subject departments in the University, there can be no department of education. As a result, the graduate certificate course has had to be integrated into the University's main teaching structures, mainly through the appointment of what are called E-tutors. At the same time, an important part of the course has been undertaken by teacher-tutors in the schools to which the students are attached throughout the whole year. This Sussex scheme might be described as one of "dual-integration".

The distinctive fact about E-tutors at Sussex is that they teach their subjects, be they English or mathematics, biology or developmental psychology, on the graduate certificate course and also on ordinary undergraduate and graduate courses. Thus they are necessarily people of unusual quality, since they combine competence and experience of university calibre in both their subject field and in education. Their time is divided more or less equally between the two.

This scheme represents a considerable gain to the education course, for the E-tutors are able to bring to their certificate teaching the advantage of being in direct touch with their subject colleagues who are no longer likely to view them as second-class academics. Moreover, this egality is confirmed by the fact that the staff-student ratio is the same for the certificate as for the undergraduate courses, i.e., 1 to 10.

In order to enable the school to play the maximum role in the scheme, the student spends the first three days of each week throughout the year in the same school, and two days each week in the university. Thus the student becomes very genuinely a member of the school community, for whose education and training the school accepts a direct responsibility.

While in the school the students (who work in pairs within the same subject) keep school terms and school hours. They are placed under the tutelage of two people, a subject tutor (who is a class teacher, usually the head of the department in the subject which they are training to teach) and a general supervisory tutor who is usually the head or deputy head of the school. The subject tutor organizes the students' program of teaching and gives them a tutorial once a week after school hours; the general supervisory tutor meets him once a fortnight, together with the other students in the school for a seminar. In this seminar situation, the general supervisory tutor is acting as a host to 'his' students and trying to put the day-to-day classroom teaching in the wider context of the school as a social organism, as the center of a great many social services and as an instrument of local and national education policy. As a result, the Sussex students are perhaps better informed about matters like attendance forms, the services and availability of educational psychologists, and aspects of the timetable than many teachers, even the experienced ones.

The subject tutor is charged with responsibilities for training the teacher in his particular field. Whilst the University makes certain recommendations, he is given total responsibility for the amount a student teaches and how he or she spends his "free" time. He is also charged with giving tutorials after school, for setting and marking written work. Above all he is charged with assessing the student as there are no external examinations.

During their two days each week in the university, the students attend three or four seminars conducted by the E-tutors, both on a subject basis and an educational and social science basis. In the first term these seminars are in part an exercise in disorientation, in part an exercise in reorientation, for after three years as undergraduates they arrive living, all too often, out of the top of their heads rather than at their finger ends. In the second term the E-tutors run joint feed-back seminars attended by all their subject-students and by the teacher-tutors. Here they examine together the aims of the curriculum and they analyze their collective experiences in the classroom. And also, in teams of two and three, there is rather more structured work in education and the social sciences, as well as essays and projects to be written.

Essentially this course is closely integrated, and school and university are complementary. The E-tutors do not supervise the teacher-tutors, though they consult together. It is important to note that the university pays the teacher-tutors for their services. The money for this payment is derived by appointing correspondingly fewer staff within the university. Thus the 10/1 ratio on the certificate course includes the staff equivalent of the money paid to the teachers.

It seems that this Certificate course has worked well. It strongly appeals to the studnets; the university also ran a competing traditional course for a few years, but gave it up when most students were clearly opting for the new-pattern. In addition, the scheme is strongly advocated by the university's E-tutors and by the school-tutors and supervisors, virtually all of whom have experience with the more normal "sandwich" pattern of certificate course. This pattern also has been quite widely accepted by the professional associations of teachers because it gives, perhaps for the first time, full responsibility to practitioners for the training of their future colleagues.

The main problem involved in running such a scheme is to appoint university faculty to the E-posts which have to be people of considerable qualification to undertake their very arduous dual role and to resist an inevitable pull towards the academic subjects. Also it is difficult to find school teachers of the appropriate calibre, especially teachers familiar with new and experimental teaching developments. On the other hand, the scheme provides the teachers with the need and incentive to make themselves competent, to keep up with developments in their own subject fields and in the area of educational theory and development. At Sussex an in-service program is planned for the summer terms when it is hoped that pairs of students can take over the teacher-tutors' courses to a great extent and thus release the teacher to go into the university for one or two days a week.

Above all, the scheme represents a valuable move towards involving the schools and the profession in the education of teachers, and towards bringing the school and university (or college) into close working collaboration. It would now seem incontrovertible that the education of a teacher can only flourish if the relationship between the academic center and the school, and between theory and practice, is greatly strengthened; and this scheme seems to have found a way of translating these long-accepted goals into successful implementation.

Boris Ford

INTEGRATED TEACHER TRAINING FOR LATIN AMERICA

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Santa Maria, Rio Grande do Sul, Brazil

The Federal University of Santa Maria is composed of a center of basic studies and seven centers for professional training, in addition to a central library, educational museum, university hospital, data processing or computer center, planetarium, and a future observatory. The center for basic studies includes four areas: (a) physical and mathematical sciences, (b) biological sciences, (c) social sciences, and (d) the humanities. Within this center, students study subjects either in preparation for work in the professional courses, or in order to deepen and broaden their work in the academic specialties such as mathematics, biology or history. One of the seven professional centers is devoted to the pedegogical sciences. Teacher training for the secondary school level may be studied and specializations in ten different subject areas, including history, geography, mathematics and the like, are included in this part of the University. Other specialties include administration and supervision, preparation for teaching in normal schools and guidance and counseling.

One of the unique and innovative aspects of the academic program at Santa Maria is that, while the disciplines are taught in the different centers of the University and are grouped under thirty-eight different departments, these departments and disciplines are not isolated. They are closely related and fully open so that students and faculty have the flexibility to move from one department to another in dealing with a broad topic. In this way, an integration of knowledge and methodology, which is rarely found in many universities, is achieved.

The center for professional educational training was recently chosen to be one of the institutions in Latin American to provide courses for the "Inter-American College of Education." This unique program, funded by the Organization of American States, is designed to provide postgraduate training in educational administration, research and technology for participants from throughout Latin America. Initiated at Santa Maria on January 26, 1970, it is currently preparing its third group of students in educational specialties for the enhancement of education in Latin America. The student body is composed of teachers with at least five years experience from countries as diverse as the Domincan Republic, Costa Rica, Venezuela and Paraguay as well as from the several states of Brazil.

The first three courses, planned for 1970-72, included the training of curriculum specialists at the secondary level as well as the basic theory and practice of educational research and elements of educational planning. These courses last for one year and require 1,455 class hours. For participants in this program to earn the master's degree in education, which is increasingly required in Latin America, the student carries out various assigned activities and then writes and defends a thesis. The Inter-American College of Education represents one effort toward integration in the Latin America in education and is a first step toward the creation of a University of the Americas.

Vitor Francisco Schuch

INNOVATION IN TEACHER EDUCATION AT A NATIONAL LEVEL

INNOVATION IN TEACHER EDUCATION AT A NATIONAL LEVEL

Throughout this document, the primary focus has been on innovation and new programs associated with teacher education at individual institutions. In this section, the programs are still based in a single institution, but their scope and direction are on a national level. Without entering into the old and usually fruitless debate over the merits of centralization versus decentralization in educational systems, it may be suggested that the more effective systems seek to maintain a balance between the freedom to experiment and innovate at certain points in the system and the orderliness and overall progress which results from the capacity to disseminate and implement genuinely useful innovations throughout the national system. The emphasis in this document has been on institutional programs, carefully selected to demonstrate trends and movements. But little has been said about the necessity and difficulties of generalizing certain creative solutions throughout an educational system.

In this section, three programs have been included which have national implications. The University of Lima is developing a series of courses in the administrative sciences in recognition of the fact that the new Peruvian educational reform, officially begun in February, 1972, will require for its success skilled and dedicated educational administrators throughout the country. In Chile, as in many other Latin American states, the engine of the national educational reform movement is located in a central institution in the country's capital. Endowed with broad legal powers and blessed with an exceptionally able team of professionals, the Center for Educational Improvement, Experimentation and Research in Santiago is responsible for many of the innovative efforts, and the dissemination of them, in the areas of inservice training, curriculum development and educational research. The third contribution in this part is completely national in scope being an eloquent statement of the advantages of a national system of accreditation in teacher education for the Philippines.

NEW COURSES IN ADMINISTRATION FOR TEACHERS

The University of Lima
Lima, Peru

Peru, which is currently in the process of reforming its educational system toward the goal of adapting the school to the necessities of the rapidly changing Peruvian society, cannot afford to overlook the importance of the principal agent of the educational reform which is the administrator. In spite of recent achievements, the educational system has been criticized principally in relation to its productivity as compared to the costs of education. Many have believed that a good teacher was automatically a good administrator, capable of managing and exhibiting leadership in matters as delicate as the administration of human, financial and community resources. The specific nature of administrative requirements and aptitudes, abilities and knowledge has not been well known. In view of this, the University of Lima, which has specialized in the administrative sciences, has proposed for the consideration of the National Council of the Peruvian Universities several programs in administration for teachers and others at all levels in the educational system.

The general goal of the academic program of educational administration at the University of Lima is to prepare professional personnel to be capable of formulating, applying, supervising and evaluating the educational policies and plans in accordance with the social and occupational requirements of the country. More specific objectives include the training of personnel to the highest level for the administration of the national educational system, educational administrators currently in service, as well as prospective administrators. Secondly, to investigate the problems which are derived from the administration of educational institutions at different levels and in agreement with the specific necessities and circumstances of each region. Thirdly, to allow students to acquire specific competencies through direct experiences in the actual functioning of an administrative system which will thereby help to increase their productivity.

Three types of courses are proposed. There will be a course for teachers who wish a secondary specialization in educational administration. This will be provided primarily for teachers who are currently teaching and have the first degree. The course is one semester long and was begun in August, 1970. A second course for in-service education in administration is aimed at the post-graduate level for persons desiring to obtain the title of Master of Educational Administration. This course will require four academic semesters. Finally, there are several post-graduate and other short courses for teachers, which may or may not have their certification.

In all the courses in administration there are a number of common elements. Certain specific skills or competencies must be developed, such as the capacity to perform the administrative functions in educational institutions. Not only does the student acquire skill through practice, but he also studies administrative theory and the regulations and legislation associated with administration. Finally, the student learns to conduct research and practical experiments so as to be able to utilize research when he returns to his career, and even to generate his own research when he returns to the field as a professional. Three major emphases are given in all courses of administration: comparative systems of educational administration, psychological and social bases and foundations of administration and a study of the relationships of administration and development.

The one semester course for administrators and teachers which is usually provided as an in-service program includes a wide variety of topics. Persons enrolled in this course study first the basic principles of administration and then how these principles are applied to educational institutions. In this first introduction to educational administration, particular attention is placed on the objectives and educational policies as they are defined in the curriculum. Students in the course then turn their attention to human relations in which the mechanisms of communication, individual and group psychology, the principles of group dynamics, and the evaluation, selection and administration of personnel are studied.

Educational planning is considered next, followed by a look at the legislation and regulations associated with schools financial administration, which includes budget preparation and proper methods of accounting, a large part of this one-semester course. The course is completed with an introduction to the cultural anthropology of Peru and a look at Peruvian educational history. In the final week of the course there is a seminar entitled, the Basic Problems of Educational Organization in Peru. In this session the new administrative reform is considered and the sum total of all the problems derived from the organization and direction and finance of education in Peru are considered.

The four semester course leading to a master's in educational administration contains five different components; basic courses, specialized courses, remedial courses which may be omitted, advanced courses and elective courses. The basic courses include principles of statistics and educational measurememt, research methods, individual research work, curriculum development, learning psychology, educational history, modern pedagogical theory, and human development through education. Included among the specialized courses are educational legislation and regulation, supervision, educational construction, finance and educational financial administration. Other specialized courses focus on certain problems particular to the elementary level, the secondary level, the vocational school, and problems in the field of counseling and the administration of personnel.

Remedial courses include general psychology, child psychology and others which the student may not have taken in his undergraduate work. Among the advanced courses are seminars on such topics as National Educational Problems, including the finance, direction and organization of education in Peru. Adult education, mental hygiene, national and international programs of integration and cooperation, the educational work of the church, are all elective courses available to students in this program.

Admission to either of these administrative programs mentioned is governed by a basic set of requirements and the decisions of the Admission Commission. In general, a candidate must have a diploma from either a normal school or a university, an academic record of high quality, three letters of reference, satisfactory results on the admission examination, experience in administration of some type, and a satisfactory personal interview. The admission commission is presided over by the Rector of the University and includes as members the director of the academic program of administrative sciences, the director of the academic program of educational administration, and a representative of the teachers.

Maria Marta Pajuelo

A NATIONAL CENTER FOR TEACHER EDUCATION IMPROVEMENT

Center for Educational Improvement, Experimentation and Research
Santiago, Chile

Among the greatest problems confronting the Chilean educational system prior to the recent educational Reform were the serious deficiencies and existing lacunae in the improvement of the teachers, pedagogical experimentation and research, development of curricula and curriculum materials, and the training and upgrading of the administrative and technical personnel in the system. In order to improve the system in these aspects, it was thought that a comprehensive solution would require the creation of a high level institution. Thus, in January, 1969, the Center for Educational Improvement, Experimentation and Research was created, based on an earlier Teacher Improvement Program begun in 1965.

The staff of the Center, which is funded directly by the Ministry of Education, is drawn from the universities, normal schools and school systems. Of the 309 employees in 1972, there were five directors, one hundred and seventy-two professionals, forty-eight administrators, and eight-four support persons.

It is important to realize that the Center has developed a team of professionals of the highest academic level. Among them are well-known scientists, men of letters and the arts, former rectors and deans, and other distinguished educators. The assembling of this talent, for which much credit must go to the then Minister of Education, Don Juan Gomez Millas, has been a key to the high quality and success of the Center's efforts.

From the first moment of the Reform, it was considered indispensable that every teacher be given the opportunity for systematic upgrading. In order to meet this immense task, the Center has cooperated with the normal schools and universities to provide day and evening inservice courses. In the Spring, the courses offered, both in Santiago and the Provinces, have stressed the introduction of new curricula. Throughout the year, the courses are designed to explore the management or utilization of the advances which have been developed in the various disciplines.

Up to now, the Center has upgraded about 90,000 teachers or an average of 15,000 annually. Of these, 50% are in basic education, 30% are teachers in the sciences and humanities, and the remaining 20% are from the educational technology and media sector.

Between 1966 and 1972, the Center conducted international courses in agreement with Unesco and the Organization of American States (OAS). These courses were designed to upgrade the teachers in primary and middle levels throughout the continent. Among these courses were Methods of Teaching Basic Sciences, and a similar one for mathematics, each of two months duration and carried out in cooperation with Unesco. The OAS assisted in courses on the teaching of the natural sciences, mathematics, language and literature, all of three months duration. The OAS also assisted in providing a ten-month long course on educational planning. Both the participating professors and the practicing teachers included numerous foreigners; the teachers were at least 50% non-Chilean and several professors came from England, Germany, Russia, the United States, France and other Latin American countries such as Argentina and Colombia.

Besides teachers, the Center also upgrades and assists the specialized and general administrative staff in the Ministry of Education. Numerous seminars have been held for Principals of high schools, Directors of professional schools, department heads, staff of the technical units of the Ministry, superintendents of education, supervisors over basic education, and for the technical personnel of the National Evaluation Service.

There is presently underway at the Center a project designed to train top level educational administrators and specialists in a quantity sufficient to meet the requirements of the Chilean system for the next ten years. This project is managed by a committee composed of representatives from the three major supporting agencies: The Chilean Ministry of Education, Unesco, and the United Nations Special Fund. In addition, representatives of the Universities also serve on the committee to ensure a close relationship between the training and the evenutal roles of these high level specialists.

In its founding statute, the Center was charged with the task of cooperating with the Ministry in the development of new curricula. In fact, since its origin at the beginning of the Reform the Center has had technical teams which have dealt with the task of developing new programs and curricula. In this area, the Center developed in the first place the transitional studies for the seventh and eighth year which were utilized in re-structuring the system. It also collaborated in the development of new basic education programs and enriched the curricula of professional education programs at the middle level in both general and technical subjects.

It is important to note that the curricula have been developed in keeping with adequate objectives for each level and subject, objectives which are both feasible and based on flexible contents. In this respect, much effort is made in order to give the teachers the opportunity to introduce corrections and modifications during the first year of application of the new programs. Once they are developed in the Center, the programs are sent to the National

Educational Council of the Superintendency for its approval. Then they are tested and modified before becoming official through a governmental decree. It is anticipated that, with the Center's programs of curriculum materials development and inservice training, the teachers will be in an excellent position to properly apply the new curricula.

As a complement to its inservice training task, the Center has made a broad effort in producing teaching materials. Teacher's guides, anthologies, technical materials, sourcebooks and the like have all been produced; at this time, more than 200 different items have been prepared and 250,000 copies distributed by the Center.

To the technical staff of the Center has fallen, also, the task of cooperating with the National Evaluation Service in developing the first National Objective Examination applied in the educational system. Over the past four years, this examination has been evolved at the Center in accordance with modern techniques. Moreover, the Evaluation Department of the Center has created a series of three month courses for basic and middle-level teachers toward the goal of enabling them to specialize in modern methods of evaluation. Finally, they are currently developing a battery of tests to evaluate the Educational Reform in all its aspects, and especially in the area of curriculum.

The Center is responsible, with the Office of Educational Planning, for the coordination of educational research. So far the Center has concentrated on applied research, that is, studies designed to serve as a practical basis for later development of new programs, guides, texts, and so on. For example, linguistic research with four to six year old Chilean children led to the new system of reading instruction called "Reading Progress." Worthy of mention also is the basic research which resulted in the creation of a program of sex and family life education, a true revolution in the educational sphere of the country.

In 1969, the Center conducted the first Seminar on Educational Research in which all the institutions and professional researchers in the country presented and discussed their research. The results and proceedings of this encounter were published in the Ministry's Review of Education, numbers 22 and 23.

Another responsibility of the Center is to coordinate and stimulate pedagogical experimentation in a broad sense in which teachers throughout the country participate. In its few short years of existence, the Center has accomplished a rich compilation of experimental projects:

A. "Reading Progress"

The Center developed a curriculum series for teachers and students, applying the new teachniques in the field of teaching reading. Materials have been created for the four basic primary years and have been applied on an experimental basis in more than 200 schools in several regions of the country. This successful experiment has become a model for the kind of work which the Center does, in that it carried out the basic research, developed the material, trained the teachers to experiment with the material, and then applied it later on a national level.

B. Project for Inservice Training of Science Teachers, Basic Education

This project consisted of introducing modern techniques and methods to the teaching of natural sciences. Materials were developed and sent to nearly 2,000 teachers in 1970. Technical teams from the Center traveled constantly to the different regions of the country in order to provide technical assistance to the teachers in managing and applying this material.

C. Sex Education and Family Life

Conscious of the responsibility of the Ministry of Education with regard to the total education of young people, especially in view of the multiple problems that affect them, the Center has taken the initiative and developed a program on sex education and family life with the objective of helping young people to scientifically meet this delicate problem. This project consists of creating a program and corresponding teaching materials. A team of specialists has been brought into this task along with the technical staff of the Center. Currently the program for high school education is finished, and is being applied on an experimental basis.

D. Comprehensive or Integrated Schools Project

The Ministry of Education, in its effort to fundamentally change the structure of the system in order to make it adequate for the requirements of sustained and accelerated change, has embarked on an experiment involving a new type of school for the high school level. In this respect, three high schools in Santiago have incorporated into their curriculum a series of elements which give them a greater degree of integration of the levels and curricula of the two sectors of this level: scientific-humanist and professional-technical. Even though the Center is not directly involved in the coordination of this project, several of its experts have participated in its development and execution. The results obtained during its application in 1969 were positive and the project was continued in 1970.

E. Educational Television Project

In 1969, the Center created an educational television department with a view toward utilizing this medium of mass communication to conduct courses for the improvement of teachers and for regular classes of students. During most of 1969 and 1970 this department was in the process of being structured.

Nonetheless, it has been able to prepare a television series for students in the field of natural sciences and for others in the area of sex education. The teachers of the different departments have worked together with the technicians of the television department in the preparation of guides and workbooks which accompany the television series. From the results of an evaluation of these experimental projects will come the answer as to whether or not the Center will concentrate in the future on the use of television for inservice teacher education.

F. Phonograph Records

The Center has developed material for phonograph records which are distributed as audio aides for the teaching of specific lessons. The purchase of these records has been approved by the Ministry and in May, 1971 the material will be in the schools and this experience can then be evaluated.

From the scope and variety of efforts by the Center, it may be said that it has been the engine that has moved the educational reform forward. It is, however, important to emphasize certain things:

1. In the first place, the Center has brought together a technical team at the highest level which has developed in five years an extraordinary record of progress in innovation with respect to the key aspects of curriculum such as pedagogical methods, techniques, and materials.

2. The Center has brought together and coordinated a series of tasks which were previously disbursed, and initiated others which did not exist and which are indispensable for modernization of the system.

3. Thirdly, the Center has introduced innovation into the system through working directly with the teachers.

4. In the fourth place, the Center has given a new value to the work of the teacher through the work with the professors in educational improvement and experimentation. They have been able to increase their salaries by up to 20% in this scheme and the efforts for professional improvement are now valued as well as years of service.

The Center proposes, as a goal, to eradicate rote learning through the inservice training courses and the development of new programs and guides. This goal and the above objectives should be organized in order to give the teachers a rational pedagogical philodophy which will include a clear definition of the function of the teacher as the guide or director of the process of change and the function of the students as active and creative participants in the process of learning. In order to raise the process of change to a scientific level the teacher must be able to apply pedagogical planning with precision.

Mario Leyton Soto

ACCREDITATION IN PHILIPPINE TEACHER EDUCATION; AN IMPERATIVE INNOVATION

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Much has been said about the quality of education in the Philippines. The present ills, social and economic, are being attributed to the present educational system. As a result, educationists, economists, anthropologists, and even politicians, singly or in groups, have come up with proposals for change; all in an earnest desire for improvement. Such proposals for change inevitably have significant implications for teacher education.

For the past five years, the most pressing problems seem to result from an inbalance in manpower resources. The overall output of graduates is much greater than market demands or needs. Thus, there is the problem of underemployment and unemployment of educated manpower. At the same time there is a lack of trained manpower in such fields requiring technological or technical skills. There has been a constant and incessant demand for change and redirection in our educational efforts.

One of the causes often cited is the mushrooming of private schools or institutions, which may be attributed to the social pressure for a university or college education through a system regulated only by the ability of parents to pay the fees. And almost always one finds that education is one of the professional programs offered in such schools. At present, there are about 580 such private schools, colleges, or universities, each turning out hundreds of graduates each year. According to Bureau of Public Schools, only about 10, 000 teachers are needed in the public schools each year, but there are about 300, 000 new teacher graduates and others who failed previous examinations who have applied to take this year's Civil Service examinations for teachers. Granting that another 10, 000 new teachers are needed in private elementary and secondary schools each year, there still remains a tremendous number of teacher graduates who will not be employed. Hence, the oft-repeated reference to an "over-supply" of teachers. There are some, however, who claim that there really is no "over-supply". In fact, while we have an "over-supply" of teacher graduates, we also have an "under-supply" of competent teachers. This is an indictment of our teacher education institutions.

Several educational surveys conducted in the past by various groups or commissions also pointed out or underscored the need for some control on college admission. As one commission reported, the number of entrants into teacher training programs should be gradually limited in view of the excessive number of applications for teaching positions. The Department of Education consequently placed some restrictions and imposed certain conditions for admission of students to teacher education programs. In spite of such governmental restrictions, however, not much improvement is evident.

There has developed today a growing interest and thrust towards accreditation. For instance, the PCSPE (Presidential Commission to Survey Philippine Education), has, as one of its major recommendations, the encouragement of private colleges and universities to join or form associations for accreditation and other similar matters of common concern. The same Commission also observed that no common standards among these institutions exist save those that indirectly emerge from the licensing requirements of the Civil Service and professional boards.A number of educationists and education officials have likewise advocated the organization of accrediting agencies for the purpose of setting up common standards of quality in educational programs, eventually improving the quality of college graduates. The PAASCU (Philippine Accrediting Association of Schools, Colleges and Universities) is so far the only such agency, but, unfortunately, it has not had enough influence on many institutions as shown by its small membership of only 28 institutions. Efforts are presently being exerted to expand this influence, and to date, two Committees have been created for the purpose: a committee on teacher education and another on engineering education.

Government control of private education through the Bureau of Private Schools appears to be inadequate because of lack of personnel and budgetary appropriations. Although the officials concerned are very willing and sincere in their desire to improve the quality of the educational programs they supervise, they cannot do more than what they are actually doing now, because of these handicaps. If private education is to be improved and school/university administrators are sincere and committed to this goal of improvement, then a voluntary organization of quality control in education becomes not only desirable but imperative. Accreditation is most extensively employed in the United States and the years have shown that such a system has served adequately in the maintenance of academic excellence in that country. Considering the present plight of education in our country, it will not do any harm to adopt the concept, and it may well prove very useful in upgrading the standards of the Philippine system.

Accreditation is defined as "a process whereby an organization or agency recognizes a college or a program of study as having met pre-determined standards". It is a method of controlling academic standards. It is voluntary, non-governmental, self-imposed control in contrast to one that is required, governmental, and imposed by an external agency such as the Department of Education. It is intended to protect not only the public against inferior education and abuses of higher education but also the employers of college graduates.

Accreditation is not certification or licensing. Certification or licensing is done by the government through the Civil Service Commission. It deals with individual persons, whereas, accreditation is concerned with institutions and/or programs. Accrediting agencies or organizations, being a device for voluntary self-regulation of colleges and universities, have therefore, no legal control over institutions of higher education. They merely promulgate standards of quality or criteria of institutional excellence and approve or admit to membership only those institutions that meet such standards or criteria. The only power that accrediting organizations have is that of giving publicity to the list of institutions that have been accredited, inclusion in which is generally accepted as the most significant available indication of institutional quality. Accreditation will supplement and complement, not supplant the government function of control of education in this country.

Who may be charged with the task of setting up the standards and the mechanism of accreditation? As mentioned previously, the PAASCU is the sole accrediting agency at present in the country. It has also organized its Committee on Accreditation of Teacher Education. This Committee has prepared an initial draft of the Standards and is in the process of trying out this set of Standards in a number of teacher education institutions. It seems logical therefore that the PAASCU should continue with this task and proceed to establish the specific mechanism for accreditation with the assistance of teacher education associations like the PAFTE (Philippine Association for Teacher Education) and NATE (National Association for Teacher Education). And in the future, if conditions so warrant, the functions of accreditation may eventually be taken over by any of these professional organizations. This should not mean, however, that only professional teacher educators should be involved in accreditation. The support and participation of other groups concerned with and interested in teacher education should be sought and encouraged, ensuring a broad-based undertaking.

Norma V. Laconico

SUMMARY

INNOVATION AND CHANGE IN TEACHER EDUCATION

SUMMARY: INNOVATION AND CHANGE IN TEACHER EDUCATION

Institutions that prepare teachers have substantially modified their programs in almost every country in the world. This modification has been in response to quantitative and qualitative demands for teachers to meet the burgeoning needs of every society. The modifications that have taken place, however, have been accompanied by fervent demands for even greater change by university academicians, employing agencies, practitioners and recent graduates from teachers colleges or colleges of education.

Academic scholars complain that teacher education is not sufficiently challenging or disciplined to qualify as a university course and that it should be given to the academicians to do. They propose intensified training in the disciplines with only a modicum of educational psychology, methodology or field experiences. On the other hand, practitioners and administrators find fault with the fact that the majority of pre-service teachers continue to receive their initial training in learning environments largely isolated from both real societal and school situations. They argue that this insularity contributes to the classroom teacher's aloofness from the realities of the world and their general unfamiliarity with social, economic and political issues which influence their environment. They would propose that teacher education should focus on the real school situations.

A third and critical input comes from the teacher trainers themselves. While some would argue for the addition of new courses and the deletion of certain programs, there are others who are seriously concerned about the tendency of teacher education to undermine the individual initiative and creativity young people bring to the task of becoming teachers.

What is evident in most of the case studies is an underlying awareness of the discontent of many about teacher education. It is recognized that teacher education has developed its own bureaucracy and through this bureaucracy has been able to perpetuate itself. Selective recruitment, in accordance with predetermined models of conformity, self-control through licensure and accreditation and processes of training that emphasize the accumulation of credits, units and courses with little regard to real school situations, are manifestations of this bureaucracy. Today, however, changes are being demanded that should alter such patterns.

Elementary and secondary schools face similar criticisms ranging from the limited access, the failure to relate schooling to economic or social development and the heavy reliance on coercion, indoctrination and conformity, to the prohibitive costs and obvious wastages of physical and human resources. With a growing lack of public confidence in schooling as both an end and a means, teacher educators are prompted to ask questions about how they create new learning arrangements, processes and organizations which are more relevant, responsive and provide more benefits per unit cost.

Consequently, innovation in teacher education in the last decade has become a reality because of both socio-economic factors and the demands for change coming from within the education profession. Where innovation is occuring, as evidenced in the above case studies, it seems to embody certain elements of reform. These include efforts:

(a) To place major emphasis upon self-education and self-evaluation with a corresponding decrease of concern about courses, credits, grades, transcripts, diplomas and certificates (thereby implying that individualizing teacher education will take place at a rate dictated by the learner with measurement of performance in real school environments);

(b) To focus on student-centered teaching and pre-service training needs rather than on specializations in subject matter (thereby attempting to discontinue using large numbers of faculty and a multitude of courses to build "whole" teachers), and

(c) To bridge the gap between theory and practice by conducting much of the teacher education program in real school situations.

New Clientele in Teacher Education

Such trends have been stimulated by changes in the kinds of people being attracted to teacher education. While the case studies do not examine the student input in their programs, we know that in all countries there is an effort to eliminate post-primary teachers colleges and, in the long run, to move away from programs that may be described as truncated or non-university efforts. It is also evident that a growing number of pre-service teachers will be those with at least a secondary education and quite possibly those who bring university training and university competency to their professional task. Better prepared candidates may also be those who have been stimulated and motivated by the challenges of society--ecological, urban, inter-racial and others--and want to do something relevant and meaningful.

It is evident that while the candidates for pre-service training will continue to be an important input for institutions that prepare teachers, the institutions will also take on increased responsibility for in-service education. Consequently, an increasing number of practitioners and administrators will be returning to schools, colleges or institutes of education for advancement in their own subject area, for the understanding of new policies and practices as they affect their profession and the practice of teaching, for the purpose of adding to or enhancing their qualifications and for retraining in new fields and in response to new needs. Consequently, schools of education will be confronted with a more diversified, enlightened and committed student body. This must be taken into consideration by those who are designing new systems or new processes of professional preparation.

While it is evident that students who are more committed, better prepared and more experienced are entering the professional preparation programs and that new processes of training are being developed, the case studies do not indicate what consideration is being taken of the need to train diverse kinds of personnel required in both formal school programs and those school programs that provide education for pre-school children, out-of-school youth and for adults. Until recently, the teacher performed every function in the school--from clerk to high-level performance as an instructor. Demands by the public that schools give personal attention to individual children rather than deal with them en masse have produced efforts toward diversity in professional preparation programs. In addition to the practices described in this volume, other innovations are called for including the preparation of people for new roles ranging from pupil tutor to the executive or master teacher. If this is perceived as a vertical arrangement of differentiated roles and functions, there is an additional arrangement that is also neglected, namely the preparation of professional experts who range from research associates, learning diagnosticians, visual literacy specialists and computer assistance specialists to systems analysts, evaluations experts, community resource and liaison specialists, learning process facilitators and professional negotiators. This horizontal grouping of talent indicates that the old concepts of generalized programs to prepare omni-capable teachers and administrators are becoming outdated and there is need for serious attention to be focused on the professional needs of a whole array of diversely qualified people.

New "students" will also come from the neighborhood communities and minority community groups as schools of education move off university campuses and training college compounds and into real school situations. Consequently, community leaders, parents and administrators must also be dealt with by professional teacher education faculties. This is a part of the general movement toward greater community participation and control of school activities. This thrust is paralleled by a broad movement toward democratization in education often associated with the drive for greater "people power". The militancy of teachers and teacher organizations is a concomitant part of this movement. This entire matrix of forces will necessitate a new response by training institutions and reinforce the need to prepare personnel capable of working in community oriented schools and their programs. It will also call for teacher educators who are both familiar with and comfortable in adversary encounters. It may be that the best people to deal with such community groups and organizations are the urban, ethnically different and militant young adults. If attracted to teacher education, they will constitute yet another new clientele.

New Teaching Patterns in Teacher Education

If we are serious about the emphasis upon self education and upon student centered teaching, this also means an end to the old didactic or mediator role for those who prepare teachers. New teaching styles are being called for in which pre-service teachers design, implement and evaluate their own programs for professional preparation. As the instructional role within the training college becomes significantly different from the "conveyor of knowledge" role that is practiced today, there should be a decrease in the emphasis on information-giving and a corresponding increase in the attention given to higher-order cognitive outcomes as well as some concern for the whole affective and aesthetic realm.

This will also mean that the faculty and staff of such colleges will need to be more concerned with the total program of the pre-service teacher, helping him to conceptualize and design his own objectives, evaluate these objectives relative to actual school needs and finally to assess his own classroom performance. In this role, the teacher educator becomes a counselor, strategist and planner as well as one who designs and evaluates performance criteria and prescribes alternative learning situations. Ivan Illich's notion of the teacher as a "travel agent"--planning an itinerary of experiences--is perhaps the best available analogy. As a result, the teacher educator will be less valued for his highly specific research products and more valued for the way his students achieve program objectives on the way to performing successfully in the classroom.

These new teaching roles are paralleled by trends toward fewer course requirements and greater emphasis on independent and student initiated study. In the courses that are retained there is an effort to give the pre-service student flexibility in course selection and the instructor substantial autonomy with regard to student evaluation of courses. Formal academic and pedagogical "offerings" are being justified more on the basis of their applicative or interpretive use in the classroom and more emphasis is being placed on unity and continuity in professional study around a topical or problematic focus than is currently the case in teacher education. Some of the studies refer to tutorial groups and student contracts. In these, a combination of professionals from the humanities and sciences, the public schools, the professional study of education and from learning skill centers join with psychologists, media and materials specialists and lay people to design a program of learning for each preservice or inservice student. Such a group focuses carefully on individual student needs, desires, capabilities, motivations, performance and other features that can contribute to the total development of the individual. They assist the student in designing and implementing his own program, using a contract format to define the tasks and responsibilities of all parties. Such contract writing calls for specification of learning objectives, the ability to assess and diagnose child readiness and motivation, the ability to plan and develop short and long-term programs including the writing of modules and the understanding of how modules fit into total programmatic design, the ability to evaluate individual pupil achievement and finally an ability to work in team situations. If these innovative programs are widely incorporated, then there will likely be a gradual decrease in the mechanistic emphasis that tends to characterize some teacher education programs today. There may be less concern for courses and credits, grades and transcripts, diplomas and certificates and more attention to the performance of teachers in the classroom with real children.

New Organizational Patterns for Teacher Education

Organizationally, these new emphases call for different kinds of instructional modes and media. Learning skill centers are being developed to inculcate skills and knowledge competencies. The tutorial or contract groups described above will work as teams to lead large group sessions or small group seminars studying topical or problematic concerns, provide guidance for clinical and intern teaching experiences, supervise micro and mini-teaching sessions and generally help the professional education student toward the attainment of proficiency in the stated competencies and objectives of his individual contract. Of equal importance, organizationally, is the effort to move away from the university campus or training school compound and into the schools of the community. A substantial portion of all pre-service experiences will likely focus on a school clinical experience. In some of the case studies students enter such school situations from the very first day of their pre-professional preparation continuing through to an intensive internship experience. The philosophers, sociologists and economists come into such school situations to help the pre-service teacher interpret and analyze what is happening, its relevance to the learning climate in the school and to his or her own professional career development. In these situations students are being encouraged to take part in off-campus or out-of-school learning experiences. In addition to other benefits, they are able to look at different learning media or educational resources of the community. The combination of both the in-school and the out-of-school community involvement and its inclusion in the professional preparation process should help to bridge the theory/practice gap that has so often characterized teacher education.

At the in-service level new organizational patterns are being implemented which will provide for the continuous in-service training of teachers instead of the non-continuous, non-sequential processes that are evident in in-service teacher education everywhere. Such training may well take place in those schools of the community that "do" the teacher education and focus upon the preparation of the "cooperating" or "receiving" teacher (in a student-teaching, clinical or internship context) for his role or assignment. Such community schools are being reorganized into training complexes or training sites. These complexes or centers can provide a most convenient and efficient way of engaging in the enterprise of teacher education while at the same time commanding the resources of colleges, universities, schools, local business and the community.

While such centers or complexes are physically housed in elementary or secondary schools they also serve as a meeting ground, indeed a neutral ground, between the university and the public school. With professionals working in a specially designed setting, performing training tasks for both pre-service and in-service teachers, they will be bridging another gap that has so often characterized teacher education--the gap between schools of education and the schools of the community. If successful, the training complex can perform a training task for which universities and colleges have long shared a joint responsibility but which inevitably has not been performed because involvement with community schools has not been the central responsibility of either party.

Such training complexes or centers also have the potential of capturing some of the ideas of the de-schooling proponents such as the creation of peer-group networks and places where all kinds of software and hardware will be available for learning and experimentation. If the training complex becomes a way for teachers to contact and then engage in dialogue with peers about common problems and situations, this may become a more valid mechanism for providing in-service education than universities and colleges can now provide. Similarly, if the training complexes can provide a wide variety of media resources they can provide a significantly rich learning environment for both inservice and preservice teachers.

Research and New Media for Teacher Education

Changes in teacher colleges and new training complexes require different kinds of technology and different kinds of mediated resources. Little has been said except by implication about either micro-teaching or the use of protocol materials in classrooms in any of the case studies. Nor is there a detailed analysis in this volume of the use of computerized listings of resources or the use of teaching machines as training devices for teacher educators. In programs that emphasize self-education and student-centered teaching there must be much emphasis upon the use of such technology. If students are, indeed, to assist in designing their own preparation programs and to evaluate their competencies and abilities relative to those of classroom situations; then media may be effectively used to streamline the process, enabling pre-service teachers to examine both their own and other teaching demonstrations through the use of portable videotape equipment. If in-service education is to be performed among groups scattered throughout a wide geographical area then new forms of telephone communication, video electro-writers and, eventually, educational television also need to be accepted.

To do any of the things suggested above will require intensive efforts at educational research on the use and application of the media available as well as the design and construction of new media. It will also require research into the ways we evaluate competency of teacher performance because at the present time we have no really accepted evaluative criteria. Research is also needed on how we organize, structure and convey content to develop skills and attitudes. Finally, increased research is needed on the language and methodology of classroom presentation, the role of extra-school experiences in the educational process and on a whole array of socio-psychological problems related to schooling.

New Competencies and Needs

Among the changes enumerated in the case studies are those that relate to competency based teacher education. It is possible that teachers will shortly no longer be licensed or certified on the basis of sets of grades and accumulated credits. Rather, emphasis will be on one's ability to perform in a real classroom setting where observation of the new teacher's ability to teach will be the requirement for entry into the profession. Observation and assessment will focus on the new teacher's ability to: (1) diagnose student needs and difficulties drawing upon diverse psychological and physiological knowledge; (2) orchestrate groups of para-professionals and other school professionals to serve as resource persons and networks for individualized programs of students; (3) communicate and empathize with students, parents and others and prescribe alternative positions and solutions to almost any combination of educational problems, needs or deficiencies; (4) negotiate interpersonal relations in and among different and diverse kinds of racial and ethnic groups; (5) assess student readiness and achievement and prescribe different kinds of learning situations, reinforcement operations and evaluate programs; and (6) develop learning resources, judge the appropriateness of instructional materials and utilize educational media.[1] These seem to be the competencies that pre-service teachers will need in their classrooms which also indicates that the current reform and innovation in teacher education is only a beginning.

1/ cf, B. O. Smith, et. al., Teachers for the Real World. Washington, D.C.: AACTE 1969, p. 71.

Conclusion

In view of the future-oriented quality of innovation, it is perhaps relevant to conclude by reviewing some of the social and educational concerns to which teacher education must address itself in the decades to come. First, there is in nearly every country a basic concern about the problems of racial, religious or ethnic minorities and the strategies and tactics to be used in developing programs which can prepare teachers to work effectively toward the achievement of just and open societies. In this volume, the case studies dealing with the Portal Schools and the TTT programs provide examples of some creative ways in which this problem is being met. A second and related concern involves the growing awareness of the need to prepare teachers for active participation in the local community. A major theme of several of the studies is the great importance of motivating and training teachers to become personally involved in and committed to the welfare of the community from which their students come.

The concerns for extra-school activities in the community and for multi-cultural education may be subsumed under a third, more general category, which is the normative or valuational dimension of teacher education. Innovation in teacher education, as illustrated in this volume, is not just concerned with how to train persons to impart knowledge more effectively; it is also very much interested in the question: teacher education for what? This is not a new question, but it appears to be assuming ever greater importance in today's world of ideological and generational conflict. The students themselves are asking teacher educators to challenge them personally, to depart from the purely intellectual approach in order to deal with the more affective and ultimate issues of life and education for living. One of the innovative approaches to dealing with this fundamental concern, which is exemplified by the University of Florida Program, is represented by the utilization of small groups of teacher candidates in which individuals are encouraged to discuss honestly and openly with their peers these basic questions of educational, social and personal philosophy.

Finally, one weakness which militates against the effectiveness of so many original and useful ideas is the failure to develop a systematic, well-integrated program in which the formal study, the activities and the objectives, both long term and short term, are fully and systematically inter-related. Too often innovations are more of the piecemeal, additive type rather than a total, systemic approach. In short, as a number of the case studies demonstrate, a true innovation in teacher education is the movement away from a number of highly discrete and disparate activities within a teacher education program which tended to previously characterize some institutions and toward well-integrated, total programs as illustrated, for example, by the overall efforts of the University of Houston, Southwest Minnesota State and the University of Bristol.

Innovation in teacher education is no longer a luxury or a frill, to be indulged in if time and resources permit. In this era of accelerated history, research and development are integral parts of every major human activity from business and industry to government. Teacher education cannot afford to stand still. No one can precisely predict the future, but the conscientious and thoughtful institutions and leaders are allocating sufficient resources toward the creation and testing of a variety of innovative responses which reflect a range of alternative futures. The case studies in this document represent some of this enlightened leadership in the field of teacher education throughout the world. But, as the authors of these studies would be the first to admit, much remains to be done and innovation, by its very nature, provides only a first step toward the improved preparation of teachers to meet the awesome global challenges of the final quarter of this century.